

INDIAN EXPORT TRADE



REFERENCE



R. M. JOSHI.

INDIAN EXPORT TRADE

A CRITICAL ANALYSIS

BY



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PREFACE.

The general characteristic of the Indian foreign trade is that the exports consist mainly of raw produce, and the imports mainly of manufactured articles. Before the War, nearly two-thirds of the imports used to be derived from the United Kingdom but only about a fourth of the exports used to have that country for their destination. The Continental countries afforded as important a market for Indian produce as the United Kingdom itself. In fact, the tendency since the eighties of the last century was for the Indian exports to be diverted more and more from the latter to the former regions. Now the War has temporarily upset the Continental market for Indian goods. It would, therefore, be useful to inquire, What were, in normal times, the main articles in the Indian export trade? What was the quantity of each produced in India? How much of that was normally available for export? What was the position of the exported article in the international market? What other countries competed with it with their own products? Who were the principal customers for the Indian articles? What was the general outlook for those articles at home and abroad? and so on. An attempt is made in the following few pages to answer these and other questions on the strength of the statistics connected with the Indian exports during the fifteen years between 1900 and 1914.

It is believed by the writer that such an analysis of the main features of the Indian export trade will prove useful also to those interested in the industrial development of India, since that development must be based on the nature of the available raw materials.

Diagrams and tables of figures have been purposely inserted in the body of the monograph, instead of being bundled together at the end. The object is that the reader should, even at the cost of a little inconvenience, have the diagram or the table before him while reading the comments on the same.

The statistics have been mainly taken from the official publications of the Government of India.

The following reference-books, blue-books, reports and periodicals have been consulted —

1. Review of the Trade of India (Annual)
2. Moral and Material Progress and Condition of India (Annual).
3. Watt Commercial Products of India.
4. Bulletin of the Imperial Institute (Quarterly)

- 5 The Times Trade Supplement.
- 6 Commerce (a Calcutta weekly)
- 7 Capital (a Calcutta weekly)
- 8 Reports of the Bengal and Bombay Chambers of Commerce (Annual)
- 9 Special Consular Report (entitled ' Handbook of India ') published by the U S Department of Commerce, Washington
- 10 Special Agents Series, also published at Washington (Reports on special countries, e g , Italy, Russia)
- 11 Special literature bearing on certain important articles like cotton, wheat and seeds

The diagrams have been specially prepared and not borrowed from anywhere.

The Sydenham College of Commerce
and Economics, Bombay

R M JOSHI

November, 1921.

INDIAN EXPORT TRADE

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CHAPTER I.

INTRODUCTORY.

CAUSES OF THE GROWTH OF THE INDIAN
EXPORT TRADE, SINCE 1870

CHAPTER I.

INTRODUCTORY

CAUSES OF THE GROWTH OF THE INDIAN EXPORT TRADE SINCE 1870

The sea-borne exports of Indian produce and manufactures rose in value from about fifty crores of rupees in 1870 to nearly two hundred and forty-five crores in 1914 (A crore=ten millions) To give a rough idea of the growth of the export trade from its very infancy, it may be stated that in 1834, when all India except the Punjab, Burma and Berar was under the Company's rule, the value of the exports was estimated at about eight crores of rupees In 1855, after the Punjab and Lower Burma had been annexed and Berar leased in perpetuity from the Nizam, the value of the exports was estimated at about twenty-three crores Since 1855 the figures apply practically to the same extent of territory, for the only change since then has been the annexation of Upper Burma in 1886 Practically all the trade in Burma, however, is derived from Lower Burma where lie the rice-fields, the oil-wells and the teak-forests

The growth of the export trade was rapid between 1855 and 1873, slow between 1873 and 1901 and rapid again between 1901 and 1914 I shall now briefly review the main causes of this growth

(1) PEACE —The first and the most important of these causes is, of course, the establishment and maintenance of peace, internal and external After a century of political chaos and internecine warfare, the country was firmly brought

under the undisputed sway of the British, and, since 1858 has enjoyed unbroken peace and security of life and property. Between 1833 and 1853 the internal enemies of trade like the Thugs and dacoits were suppressed, and the pirates of the Arabian Sea were also finally crushed. Soon after 1858 the formulation of the Penal Code and of the Civil and Criminal Procedure Codes put the administration of justice on a sound footing, and a little later, in 1872, the enactment of the Indian Contract Act facilitated trade transactions.

(2) MEANS OF COMMUNICATION —After security of life and property the factor of vital importance to the growth of trade is improved means of transport and communication.

(a) *Roads* —In the dry season, *i.e.*, for the greater part of the year, roads are not absolutely necessary in India, and during the rains there is not much traffic, yet the utility of properly-made roads is not denied. The great trunk roads linking the distant terminals like Bombay, Madras, Calcutta, Delhi, Peshawar and Karachi had already been made before the Mutiny and greatly helped the movement of armies and transport of goods.

(b) *Railways* —The trunk-roads were quickly followed and largely superseded by the railways, the construction of which was undoubtedly stimulated by the Mutiny and materially controlled by strategic considerations. By 1873 the trunk lines, connecting the great seaports of Calcutta, Bombay and Madras and opening up thousands of miles of hinterland for trade, were completed. By 1891 Karachi was brought into touch with the fertile wheat-lands of the Punjab, and Rangoon with the teak-forests and oil-bearing rocks of Lower Burma. India has a vast coast-line but very few good natural harbours, 98% of the sea-borne foreign trade of that continent passes through but five ports, *viz.*, those

above-mentioned When they were once connected by rail with one another and with inland trade-centres like Lahore and Cawnpore and Nagpur, the further work of railway-construction was that of laying down feeder-lines, doubling the track, etc., and that work has been going on ever since and is by no means yet complete The following figures are instructive —

Railways open in 1857— 300 miles

„ „ „ 1887—14,000 „

„ „ „ 1909—30,983 „

(c) *River navigation*—The Ganges and the Indus, the two great rivers of Northern India are both navigable for hundreds of miles inland and have for centuries been used as the highways of commerce, but their utility in that direction was greatly increased when a fleet of regular steamers came to be put upon them since 1870 Similarly steam communication on the Irrawaddy linked up Rangoon and Mandalay in the nineties

(d) *Suez Canal*—But the event of an epoch-making importance in the matter of Indian foreign trade was the opening of the Suez Canal in 1869. That engineering feat brought India nearer England by 3,000 miles. Passengers and mails had, indeed, since 1836 been conveyed in steamers to Alexandria, carried overland to Cairo and Suez and then transferred to another set of steamers bound for Bombay. But this method of transport was not very convenient for handling goods, which therefore stuck to the old route round the Cape of Good Hope and the old conveyance of the sailing ship. With the opening of the Canal all that changed. Steamers plying direct between Europe and the East began rapidly to displace the sailing ship, and to

revolutionize the character and volume of the Eastern trade. It was no doubt a decade and more before the Canal came into effective use, but the stimulus it gave to trade was great from the very beginning. The Canal restored to the Mediterranean its ancient privilege of bearing on its back the trade between the East and the West, which it had lost for over three and a half centuries since Vasco da Gama discovered a direct sea-route to India *via* the Cape. European countries bordering on the Mediterranean, *e g* , France, Austria and Italy, now began to trade direct with India and the East, the Levant and the Black Sea once more resumed trade relations with the Arabian Sea, and the effect of all that was visible in the swelling figures of the Indian export trade.

- (e) *Steamships* —It was during the period under review that great improvements took place in the construction of steamships which brought about a revolution in the nature of the articles of foreign trade. The replacement of wood by iron and later that of iron by steel as the material of shipbuilding, the successive improvements in the engines of ships economising coal and releasing more space for cargo, the growth in the size of ships, the encouragement by various States of the growth of national shipping, all these things steadily increased the tonnage available for foreign trade and made it possible for the first time to transport vast quantities of bulky goods like foodstuffs and raw materials over thousands of miles at a comparatively cheap rate. The laying of the submarine cable between Bombay and Suez in 1870 did for steamship communication what the telegraph system did internally for the Indian railways.

(3) **FREEDOM OF TRADE**—Another very important cause of the growth of the Indian Export Trade during the last fifty years is the policy of unrestricted freedom pursued in that connection by the Government of India. Between 1833 and 1853 the numerous inland or transit duties hampering trade between district and district and between province and province were abolished, and the movement of goods over this vast continent made free.

During the same period all discrimination against foreign shipping in favour of the British was removed both in the overseas and coasting trade. A beginning was made with sugar and cotton towards the removal of export duties on staple articles, and by 1874 all articles were freed with the solitary exception of rice, a duty on which varying between $4\frac{1}{2}d$ and $3d$ per maund (=82 lbs) has been retained down to date.

(4) **IRRIGATION**—Vast tracts of fertile land in India, notably in the United Provinces and the Punjab, get little moisture from the periodical monsoons. They would never have been brought under the plough but for the network of artificial canals whereby the waters of the Ganges, Indus and their tributaries, fed by the eternal snows of the Himalayas, are made available for millions of acres of thirsty land. In the matter of the rains the plains of Sindh perfectly resemble Egypt; but irrigation has done for Sindh what it has done for the valley of the Nile. Even before 1858 this subject of irrigation had attracted the attention of the Government, but the main work has been done since as the following figures show.—

| Year | Area irrigated |
|------------|----------------|
| 1858 | 1.5 mil acres |
| 1887 .. . | 11 „ „ |
| 1907 . . | 22.2 „ „ |

(5) **AGRICULTURAL POLICY**.—Irrigation is only one part of an active agricultural policy steadily pursued by the State in India:

The Company's Government gave special encouragement to the cultivation of raw cotton for export in Gujerat and Berar and to the rearing of raw silk in Bengal. It was also under the Company's regime that tea seeds and plants were introduced into India from China, though the great growth of tea-plantations and the supplanting of China tea by Indian tea in the world's markets took place after 1858. It was under the regime of the Crown that large-scale plantations of tea and coffee, jute and indigo were encouraged by grant of concessions with a view to introducing new staples in the Indian Export Trade. This policy has, no doubt, succeeded since Indian exports have all through these years consisted almost entirely of foodstuffs and raw materials, and the exports have increased both in quantity and value.

(6) COUNTERACTING CAUSE EXCHANGE ---In spite of all the foregoing favourable circumstances the growth of the Indian Export Trade between 1873 and 1899 was not at all satisfactory. We have seen that between 1834 and 1855 exports rose from 8 to 23 crores of rupees, and between 1855 and 1873 from 23 to 60 crores. Between 1873 and 1893 the rise was only from 60 to 100, then till 1899 there was practically no rise at all, and it was only between 1899 and 1914 that there was the striking rise from 100 to 220 crores of rupees. The reason why the rise was so small or nil between 1873 and 1899 is that during that period the exchange-value of the rupee, i.e., its price in gold, heavily fell. But it was not even the fall so much as the violent fluctuations from month to month that hindered trade by making it difficult for exporters and importers to calculate what price they would actually pay or receive for their goods. In 1873 silver was demonetized by law in Germany and in actual practice by the other countries in Europe and by the United States. The result was that vast quantities of silver were thrown on the international market in subsequent years and the gold-price of silver naturally began to collapse. For nearly two centuries the

price of silver had been about 60*d* per oz and the ratio of gold and silver 1 to 15½. Between 1872 and 1889 the ratio rose from 15½ to 22. In 1890 it fell to 19 and then it rose rapidly till it reached 39 in 1902. In 1906 and 1907 there was a sudden fall to 31 and in 1908 a sudden jump to 39. In 1911 the ratio still was 1 39 and silver was quoted at 24½*d* per oz as compared with 60*d* per oz before 1870. These figures illustrate both the heavy fall and the violent fluctuations in the price of silver. Both the external trade of India and the finances of the Government suffered through this speculative uncertainty of the value of the national medium of exchange. The Government of India collects its revenue in rupees but has annually to make large payments in gold in England on various accounts. A fall in the gold-price of silver, therefore, meant that the Government had to collect more rupees to make the same amount of payment in sterling, and the uncertainty of the value of the rupee made it almost impossible to frame a proper annual budget. For some years the Indian Government made vain efforts to persuade the Home Government to agree to an international bimetallic compact. Finally in 1893 the Government of India closed its mints to the public for the free coinage of silver and hoped by limitation of quantity to fix the rupee permanently at about its then-value of 1-4*d*. The conventional value of the rupee before 1872 had been 2*s*. It had since fallen to 1-4 and the object of closing the mints to free coinage was to arrest the further fall of the rupee. At the same time the Government offered to issue rupees at the rate of fifteen to the sovereign in exchange for any amount of gold coin or bullion brought to the mint. The value of the rupee was thus artificially fixed at one-fifteenth of a sovereign. For a time, however, in spite of the abolition of free coinage and the cessation of minting, even on Government account, the rupee did continue to fall, and it even reached 1-1*d* but it soon rose back to 1-4*d*, and by 1898 the

Government felt quite confident of keeping it at that level by either issuing more rupees or selling Sterling Drafts in India on the Secretary of State for India in London. From 1899 to 1914 the exchange value of the rupee was in this way kept very near 1-4 though, as stated above, the gold-price of silver still went on falling and fluctuating suddenly. It was only during the abnormal times of the European War that the device broke down and the rupee rapidly rose to 2s, where it is now hoped to fix it. The advantage of a stable exchange-value for the rupee is realized when it is remembered that nearly 80% of the Indian exports go to gold-standard countries. China is the only great silver-using country which purchases substantial quantities of Indian goods.

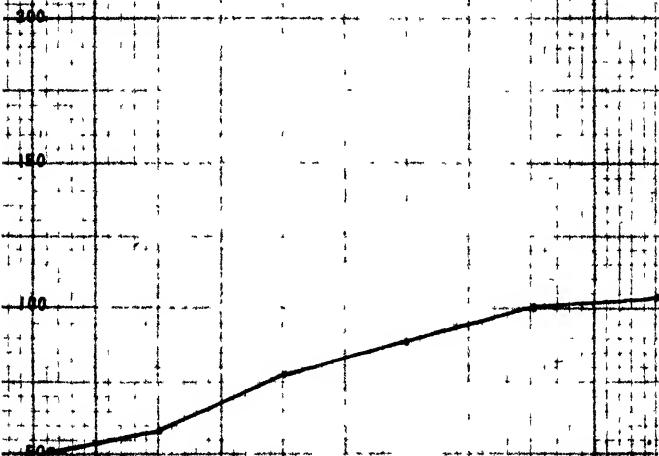
The slow growth of the export trade between 1873 and 1893 is very largely due to a falling and unstable exchange. The stagnation between 1893 and 1900 was caused by unusually severe famines and by the outbreak of plague. The rapid growth since 1901 was no doubt made possible by the stabilizing of the exchange-value of the rupee.

While emphasizing the great development of the Indian export trade especially since the beginning of this century, it may be mentioned that even the high figures of 1913-14 only compare with those of a tiny European country like Belgium which has less than one-fifteenth of the population of India.



NO. 1. INDIAN EXPORT TR.

1870-74 1875-79 1880-84 1885-89 1890-94 1895



The above graph shows the GROWTH OF THE INDIAN EX

NOTE:—The exports are of Indian merchandise and being excluded. The figures are of quinquennals in million Rs. to avoid confusion caused by the

CHAPTER II

GROWTH OF THE EXPORT TRADE, 1899-1914.
Considered Year by Year

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GROWTH OF THE EXPORT TRADE, 1899—1914,

Considered year by year

We shall now consider the export trade between 1899 and 1914 year by year. In the diagram facing page one the curve representing this period seemed to show a more or less steep ascent continuously. That was so because the graph there was based upon quinquennial averages as it illustrated a period of forty-five years. The graph (No. 2) facing this page shows the annual fluctuations and particularly reveals a great depression in 1908-09. It is also seen that what may be called a steep ascent only occurs during the years 1909-10 to 1912-13 inclusive.

1899-1900 As the bulk of the Indian exports consist of agricultural products like rice, wheat, cotton, jute and oilseeds, the importance of the south-west and north-east monsoons in the economy of Indian life can scarcely be exaggerated. Unfortunately, the rainfall in India is the most precarious in the world, with the possible exception of Australia. Artificial irrigation from snow-fed rivers touches only the fringe of the problem, as it waters barely 25 million out of some 250 million acres of cultivated land in India. In considering the size of the exports of any year, therefore, the first point to seek information about is the character of the seasonal rains. During the year ended March 31, 1900, the south-west monsoon failed more or less completely over large regions of Central and Western India and part of the Punjab, and the winter rains also similarly failed, except in Northern India. There was wide-spread distress following drought, which led to withdrawal of funds to feed the famine-stricken, thus causing a disturbance in the money market and a rise in the rate of discount. Then there was a

recrudescence of the plague with the resultant unsettlement of the labour market. In spite of all this the export figures were only slightly lower than those of the preceding year which had been regarded as unusually good. The reason for this was that trade and industry in the United Kingdom, in Europe generally and in the United States were in a most flourishing condition during the year, and there was a general advance in prices. The rate of exchange, too, remained very steady throughout the year, and in the first half of the year the money market was in a good condition. There is one article the exports of which swell in a famine year and thus partly compensate for the general decline, and that is hides, because more cattle die through want of fodder in a droughty year. The hides exported from India mostly come from animals dying a natural death, and not from slaughtered cattle. The religious sentiment of the vast mass of the population is against the slaughter of cattle for purposes of food.

1900-01. The famine of the latter half of 1899-1900 continued through the first half of 1900-01 and left its mark on the trade of the year. The monsoon was not unfavourable except in Western India. Cotton, which is produced mainly in the latter region, reached a prohibitive price and so checked the spinning industry. China, the chief market for Indian yarn, was temporarily closed owing to the Boxer Rebellion, and, even apart from it, carried excessive stocks from the preceding year. The tea trade, mainly located in Eastern India, suffered a similar depression to that of the spinning industry in Western India, and the cause was the same, *viz.*, overproduction and fall in price. The indigo industry had been steadily declining since 1897 owing to the competition of cheaper synthetic dyes manufactured by German chemists. The coffee industry had come similarly to be affected by Brazilian competition. Plague continued to embarrass trade in general.

But there were some compensations on the other side of the account. Better business was done in opium, raw jute and jute

manufactures The export of hides soared even higher than in the previous year. The unusually high price of cotton made up for the smaller quantity exported. The course of exchange remained quite steady, the maximum being 1s 4½d and the minimum 1s 3¼d. The bank rate in Calcutta did not rise above its usual 8% in the busiest season. The net result of it all was that though the exports declined as compared with 1899-1900 the decline was much smaller than had been the case in the latter year as compared with the one preceding.

1901-02 The season was good, the harvests were good; so there was a great rise in the exports of rice, wheat, cotton, oilseeds and jute. The consuming markets were ready to take a greater supply at prices profitable to the exporter. The course of exchange was again steady for the fourth year in succession so that the Government's currency policy of 1898 created a feeling of confidence in the business world. The money market was in good condition, the Bank of Bengal rate reaching 8% only for a month or so in March. China resumed her demand for cotton yarn.

There was depression, no doubt, in some quarters. The exports of tea, for instance, were lower and the price continued low. The decline in indigo continued. Opium exports were low owing to the poor crop in Malwa. There was also a heavy fall in lac. Hides too declined to their normal proportions—a sign of the goodness of the season. But in spite of all this, the total exports of the year were greater than they had ever been before, the increase over the preceding year being at the rate of 16 per cent.

1902-03 The season was not wholly favourable. The rice and cotton crops were very large, but the wheat crop was unfavourable, jute was deficient, and the yield of oilseeds was very much reduced. Indigo too suffered from an adverse season, in addition to the special cause operating against that trade. The supply of Malwa opium was again small.

Prices of the staples fell in general or remained stationary. Jute and hides were important exceptions, the former showing a considerable rise in price. The depression in tea continued owing to lowness of price, and the same was the case with opium. Lac recovered considerably through a rise in price.

The state of the money market was as satisfactory as in 1901-02. The Bank of Bengal rate rose to 8% only for about a month in March and remained at 3% as usual during the slack season of the monsoon. Sterling exchange, too, was as steady as in the preceding year. The price of silver, however, ranged from 21½d to 24¾d per oz and the consequent fluctuations in the dollar and tael exchanges embarrassed the trade with China.

The net result was that total exports only rose by 3½ per cent over those of 1901-02.

1903-04 The seasons were favourable for all the crops, and the exports of rice, wheat, oilseeds and cotton were on a very large scale.

Higher prices were realised for rice and raw hides. There was an extraordinary inflation in the prices of raw cotton, opium and shellac. There was a slight advance in the price of tea though the crop was a heavy one. The prices of wheat, millets and pulse fell and those of oilseeds were very much reduced. The decline in coffee and indigo continued.

The heavy crops created an unusually heavy demand on the money market, but the Bank of Bengal rate did not rise above 7%. The variations of the sterling exchange were within narrow limits, but the instability and uncertainty of the dollar and tael exchanges hampered the trade with China.

The exports of 1903-04 were 19% higher than those of 1902-03. The increase due to variation in price was equal to 5% and that due to variation in volume of trade was 14%.

1904-05 There was a partial failure of the monsoon in Gujarat and parts of the Madras Presidency, but so far as the exports are concerned, the only crop affected thereby was raw

cotton. In 1903-04 the scarcity of American cotton caused an extraordinary demand for Indian cotton, in 1904-05 the abundance of the American crop led to much smaller exports of Indian cotton even though the high average price of the previous year was maintained. Exports of grain and pulse, particularly of wheat, reached an extraordinary level in 1905, and the same was the case with the quantity of oilseeds exported, though the price was very low.

The prices of cotton yarn, raw jute, jute manufactures, hides and raw wool were higher than in 1903-04, while those of grain and pulse, seeds and indigo were lower.

There is nothing particular to note about the state of the money market and the rate of exchange.

The total value of the exports was 3% higher than that of 1903-04, about 13% of this increase being due to variation of price and the rest to that of volume.

1905-06 The seasons were not favourable with the result that the wheat, seeds and rice crops failed considerably and the exports of these articles fell heavily. How unfavourable the seasons were is shown by the big increase in the export of hides. Opium declined owing to contraction in the Malwa crop, but raw jute reached an unprecedented figure. Raw cotton also revived from its decline in the previous year. Jute manufactures and lac rose considerably. The net result was an increase of over 2½% in the total value of exports over those of the preceding year.

1906-07 The character of the seasons was not very favourable. Consequently there was a diminution in the exports of rice and wheat. The quantity of cotton exported was only slightly higher than in 1905-06, the value showed a greater rise. Both hides and seeds increased in quantity but much more so in value. Exports of raw jute showed a prodigious increase, owing to the very high prices paid for the crop. Exports of lac continued to increase. Those of yarn showed heavy decline, partly due to greater internal consumption.

The increase in the total exports of Indian merchandise in 1906-07 was 9% over those of the preceding year.

1907-08. The season was quite unfavourable, the rains being either excessive or deficient. Famine was declared over a large area, the outturn of every staple crop was seriously curtailed. The full effect of this is not, however, seen in the export figures of this year, as the exports of the first six months of the statistical year (which begins on 1st April) are, in the case of spring crops like wheat, really derived from the surplus of the harvest reaped in the preceding year, and therefore determined in their quantity by the character of the season of that year. The same also holds true of cotton and oil-seeds. Jute and rice, however, are autumn crops and their exports take place within the year in which they are harvested. The effect of a droughty season on the export of hides is also seen before the end of the statistical year. These considerations call for special attention when the seasons take a sudden change for the worse for two or three consecutive years. The exports of rice were lower in quantity but higher in value than in 1906-07. The rise of price was greater still in the case of wheat. Raw cotton showed a remarkable rise, and raw jute even a more decided fall in price. Equally striking was the rise in the value of seeds exported. The price of raw hides, on the other hand, declined heavily. The exports of lac continued to increase.

The money market was firm. The Bank rate reached a maximum of 9 per cent. and kept on a higher level than usual all through the year. The great financial crisis in the United States coincided with the famine conditions above referred to, with the result that the rate of sterling exchange, for the first time after nine years, fell below the parity value of 1s. 4d. and touched a minimum of 1s 3½d. in November. On 31st March, exchange was quoted at 1s 3¾d. The American crisis not only affected the market for Indian gunny-bags and

hides but upset the dollar and tael exchanges in China in which the Indian export trade is vitally interested

The net result of all these factors was that the total value of the exports of 1907-08 was about the same as in the preceding year.

1908-09. The rains again failed in large tracts of India. Wheat exports were cut down by 80 per cent. over previous year's figures, and rice exports by about 20%. Seeds also declined, but hides rose, as usual in famine years. Raw jute showed a recovery but cotton fell away. Cotton and jute now represented about equal values, *viz*, about £13 million sterling each, the two together amounting to over a quarter of the total Indian exports worth about £100 million sterling in 1908-09. After a series of years of high prices lac showed a fall this year.

The Bank rate did not rise above 8% either in Calcutta or Bombay but continued at as high a level in general as in 1907-08. Exchange was steadily below par throughout the year, though the minimum reached was only 1s 3½d.

The depression in the export trade of India in 1908-09 was due as much to the failure of rains within the country as to external causes, for that year was characterised by a general contraction of trade in all the leading countries of Europe and America. Five continuous years of high prices and trade prosperity had led to over-trading and over-production, which brought about the financial crisis of 1907, and India being now linked up with the international market felt the effects of the spasm like the rest of them.

The total exports of 1908-09 showed a decline of 13 per cent. over the figures of the previous year.

1909-10. The season was exceptionally favourable, and the outturn of all the main crops, *viz*, rice, wheat, cotton, jute and seeds, benefitted accordingly. The full benefit of this is not, for reasons already explained, reaped in the export figures for the present year, but the brisk trade of the last four months of the statistical year 1909-10 sufficed to pull up the average for the whole year,

India had an ample wheat crop just when a shortage in the visible American supply was being declared. The cotton crop of the Deccan was ample and unusually early; so it benefitted by the rise in prices caused by a smaller Egyptian yield combined with unfavourable estimates of the American crop. Indian linseed benefitted by the shortage of the Argentine crop of linseed. There was no similar rise of price in the case of Burma rice, but the trade was brisk all the same. The export of hides declined as was only to be expected. Lac continued at the low level of price reached last year. The depression in raw jute also continued.

The money-market was in an easier condition than in 1908-09, and the Bank rate only reached a maximum of 7 per cent. Exchange steadily improved and reached par in October. The general improvement in the trade of the countries of Western Europe and the United States reacted favourably on the Indian trade.

The total exports of 1909-10 showed an increase of 23% over the preceding year and of 6% over the year 1907-08.

1910-11. The winter rainfall of 1910 was timely and well-distributed, so the spring crops, whose export ran into the year under review, were good. The monsoon rains between June and September were generally favourable, and the cold weather showers of the early months of 1911 were also satisfactory. Consequently the outturn of the principal crops was as good as or better than in 1909-10, with the exception of cotton. The exports of raw cotton, however, exceeded any other item in value as they did in the preceding year, because the high prices of that year were more than sustained in 1910-11. Seeds showed a remarkable increase, and for the same reason. Exports of rice were higher than they had been for ten years. Wheat and tea showed a higher value, and so did even coffee which had been declining, like indigo, for years. The only decline was in hides. Opium showed a substantial increase.

The Bank rate did not rise above 7% in the busiest season, and the rate of exchange kept mostly above par, even the minimum reached not being lower than 1s 3 $\frac{1}{4}$ d

The rise of prices in 1909-10 had been due to shortage of cotton and foodstuffs in the international market, that in 1910-11 was due to real improvement in demand. The trade of Western European countries and of the United States rose all round, and India shared in the general advance.

Exports of Indian merchandise in 1910-11 showed an increase of 11 per cent over those of the preceding year.

1911-12 The cold weather showers of 1911 had been good. The monsoon rains were fair on the whole, but they failed completely in parts of Western India. The cotton crop was even lower than it had been last year, and the outturn of rice, too, showed some decline. The jute crop fared well. The cold weather rains were favourable for the spring crops, so that the outturn of linseed was even higher than in the preceding year and that of rapeseed about the same. The wheat crop showed a small decline over 1910-11.

The exports of raw cotton declined both in quantity and value. Oilseeds established a record. Exports of raw jute showed a great rise in quantity and a greater still in value. Raw hides showed a perceptible increase. Exports of rice were again very high in quantity and higher still in value. Those of wheat were about the same as in the previous year. Tea and opium kept up the high level reached in that year.

The Bank of Bengal rate was rather high throughout the year and reached 8 per cent in February. Exchange was quite normal.

The trade conditions in Europe and the United States were not very satisfactory. In Europe labour troubles were general, and at the close of the statistical year the United Kingdom suffered from a colliery strike on an unprecedented scale.

A factor specially calling attention in the year under review was the rise in shipping freights which reached a higher level than they had ever done since the South African War. The rise amounted to as much as 33 to 50% over the average rates for the previous three years. Thus the rate per ton on rice from Calcutta to London was quoted in January, when the shipments are heaviest, at £1. 6s 3d. instead of an average of 18s for the three previous years. Similarly, for cotton from Bombay to London £1 per ton was paid in January 1912 instead of the average of 14s for the same month in the three previous years. For wheat from Karachi in the month of May £1 1s per ton was paid instead of 15s., the average similarly taken.

In spite of all this the exports of Indian merchandise in 1911-12 made an advance of nearly 8% over the figures of 1910-11 and exceeded the record already established.

1912-13 The cold weather rains of 1912 had been distinctly favourable for the oilseeds crops and not unfavourable to the wheat crop. The monsoon was about normal. The cotton and jute crops were appreciably higher than in the two preceding years, but there was a substantial decline in the outturn of rice. The cold weather rains of 1913 were not very favourable.

In spite of a smaller outturn, the exports of rice were the highest on record both in quantity and value. Owing to the shortage of crops in Indo-China and distress in Japan added to the shortage of the Burma crop, prices jumped very high. The same was the case with the exports of wheat, and for similar reasons. The American crop was good, but the Argentine wheat was held up by the railway strike in that country, and the Russian supplies were temporarily cut off by the closing of the Dardanelles during the Balkan wars. Of cotton the same quantity was exported as in the preceding year, but the value was smaller owing to a fall in price. Jute exports had a very prosperous year, an ample crop coinciding

with a substantial rise in price due to intensity of demand. The exports of raw hides increased in weight and still more in value. Seeds showed a substantial decline after five years of growth. The price of linseed fell because the crop in Argentine was large and also because Canada put heavy quantities of flax seed on the international market. The decline in opium was due to an agreement between the Indian and Chinese Governments whereby the former, which holds the monopoly of the product in India, promised to export progressively smaller quantities to China with a view to complete cessation at an early date. With the cutting down of the quantity exported the price, of course, rose though not always enough to make full compensation.

The Bank rate, again, reached the maximum of 8 per cent during the busy season of the cold weather, though the minimum had been 3 per cent as usual during the slack months of August and September. The course of exchange was very steady.

The high freight rates of 1911-12 continued during the year under review and were a handicap to trade.

The trade of European countries and of the United States was prosperous in spite of disturbing factors like the coal strike in England, the wars of Italy and the Balkan States against Turkey, the presidential election in the United States, etc.

For the fourth year in succession the exports of Indian merchandise showed a substantial rise and now stood at £160 million sterling.

1913-14. The cold weather rains of 1913 had not been very favourable, nor was the monsoon of the year very regular. In fact, famine conditions appeared in parts of northern and central India. The rice crop in the former region was defective; the jute crop suffered through excessive rainfall in Bengal. The outturn of cotton, however, in Western India was good. Insufficiency of cold weather showers in early 1914 led to a shortage in the crops of wheat and seeds.

There was a great decline in the exports of rice both in quantity and value, though prices were higher than in ordinary years. The decline in the exports of wheat was even more striking. Cotton exports, however, beat all records both in quantity and value. The exports of raw jute were smaller than in 1912-13 but the value was greater owing to the very high prices realised during the year. In spite of a smaller outturn than in 1912-13 the exports of rape and linseed did not decline in quantity, but linseed fetched a lower price. Ground-nuts had been rising in importance since 1910, and their value in the year under review beat that of rapeseed. Record prices were realised for hides, so that their exports exceeded the high level of 1912-13 in value though not in weight. Tea beat all records both in quantity exported and value.

Money in 1913-14 was fairly plentiful. The Bank of Bengal rate did not rise above 7 per cent. This is remarkable in view of the fact that over a dozen small, Indian-managed banks in the Punjab and Bombay failed during the year under review. To remedy the periodical stringency in the money market displayed by a maximum Bank rate of 7 or 8 per cent in March as against 3 per cent in August year after year, the Government of India was in 1913-14 permitted by the Secretary of State to lend to the Presidency Banks during the busy season any sum up to three million pounds from its balances at a rate one per cent less than the current bank rate.

The course of exchange was steady throughout the year.

The maritime freights fell considerably during the year. This was specially the case in the Far Eastern trade owing to a freight war between the Nippon Yusen Kaisha and the British India Steam Navigation Company, which was still going on at the close of the official year. The fall in freights, however, also occurred in the trade with Europe and was due to a general abundance of tonnage available as contrasted with the state of affairs in the two preceding years.

In the international market the disturbing factor was the continuance of the Balkan War which meant the closing of the markets in South-Eastern Europe and higher rates for money in the other European countries

The net result of all these circumstances so far as Indian trade was concerned was that the exports showed only a small advance over those of 1912-13 and amounted to nearly £163 million sterling. That, then, was the pre-war level

The rapid survey taken above of the period 1899-1914 year by year brings out certain salient facts. First, the exports of all the main articles, *viz.*, rice, wheat, seeds, cotton and jute, fluctuate according to the character of the seasonal rains on which those crops depend. On the whole, the quantities of these articles exported year by year have steadily increased so as to be nearly doubled in most cases by the end of the period. It must be noted, however, that the main reason why the total value of the export trade shows such a remarkable rise year by year, except in 1908, lies in the fact that the prices of the various articles have risen in a much higher proportion than the quantities exported. This is especially true in the case of raw cotton and of jute, both raw and manufactured. Moreover, the exports of raw cotton and raw jute show smaller fluctuations even as regards quantity than those of the other articles mentioned above. In the case of tea there is a steady increase both in quantity exported and value. Both hides and shellac show a steady increase of value over the period as a whole. The only article of importance in the export trade which shows a decline in quantity and a less noticeable decline in value is opium. In fact, the trade in that article assumes very small proportions at the end of the period as China, the main market for it, wants to stop that trade.

The condition of the money market in India was fairly good during the whole period. The course of exchange, which, previous to 1898, was such a matter for anxiety for business

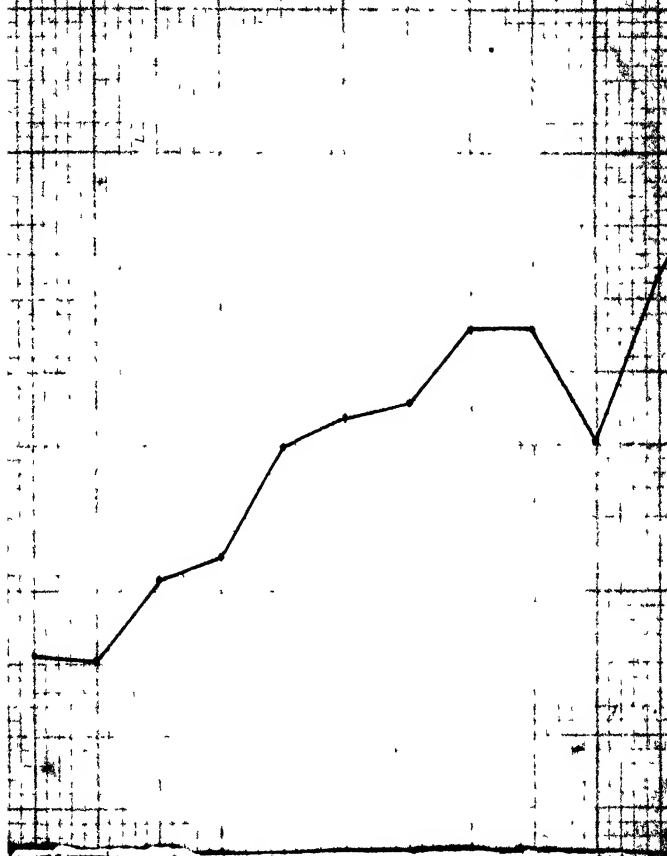
men, was pretty smooth since then, with the exception of a period of about sixteen months subsequent to the American financial crisis of 1907.

Shipping freights were low for the major portion of the period but rose considerably from 1910 to 1913

Finally it may be noted that the period was one of great development of trade and industry in all the countries of Western Europe, in the United States and in Japan. The growing demand of these industrial populations for food-stuffs and raw materials produced in any part of the world led to a rise of prices in those articles whereby agricultural countries like India benefited. That is the real explanation of the remarkable growth of the Indian Export Trade during this period

INDIAN EXPORT TRADE

1900-1 1901-2 1902-3 1903-4 1904-5 1905-6 1906-7 1907-8 1908-9 1909-10



1900-1 1901-2 1902-3 1903-4 1904-5 1905-6 1906-7 1907-8 1908-9 1909-10

NOTE:—1. The Indian official year dates from April 1st.

2. The values in the diagram are in pounds sterling.

3. The exports are of Indian merchandise only.

CHAPTER III

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MAIN ARTICLES IN THE INDIAN EXPORT TRADE.

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I RAW MATERIALS.

CHAPTER III

MAIN ARTICLES IN THE INDIAN EXPORT TRADE.

It has already been stated that Indian exports consist mainly of raw materials and food-stuffs. These two categories account roughly for 80 per cent. of the export trade and the remaining 20 per cent. is represented by articles wholly or partly manufactured. That has been so throughout the period 1899 to 1914. The following table shows the order of relative importance of the various separate articles at the beginning, middle and end of the period —

Articles in Order of their Importance

| | | | 1899-00 | 1906-07 | 1913-14 |
|---------------|----------------------|-------|---------|---------|---------|
| | | | (mil £) | (mil £) | (mil £) |
| 1. | Cotton, Raw | | 6·6 | 14·6 | 27·3 |
| 2. | Jute, Raw | . . . | 5·3 | 17·8 | 20·5 |
| 3. | Jute Manufactures | . . . | 6·2 | 10·4 | 18·8 |
| 4. | Rice | .. . | 8·6 | 12·3 | 17·6 |
| 5. | Oil-seeds | . . . | 6·6 | 8·6 | 17·0 |
| 6. | Tea | | 6·0 | 6·5 | 9·9 |
| 7. | Wheat | | 2·6 | 5·2 | 8·7 |
| 8. | Cotton Manufactures | | 5·5 | 8·1 | 8·1 |
| 9. | Hides and Skins, Raw | | 4·6 | 7·2 | 7·8 |
| 10. | Leather | .. . | 2·3 | 2·9 | 2·8 |
| 11. | Opium | .. . | 5·4 | 6·2 | 2·2 |
| 12. | Wool, Raw | | ·9 | 1·6 | 1·6 |
| 13. | Lac | | ·7 | 2·3 | 1·3 |
| 14. | Coffee | . . . | ·9 | ·6 | ·1·0 |
| Total | | | 62·2 | 104·3 | 144·6 |
| Total Exports | | | 70·0 | 115·3 | 162·8 |

The precise order of importance in the above table is, of course, that in 1913-14, but roughly speaking that order obtained all through the period and especially since 1904. The exact gradation, however, is of little importance. The point to notice is that fourteen items comprise the bulk of the export trade, or, if the group items, *viz*, Cotton manufactures, Jute manufactures, Oilseeds and Hides and Skins, be resolved into their component parts, there are some two dozen articles that need to be considered separately with a view to finding out their respective markets and possibilities. The articles may conveniently be grouped under four divisions as follows —

| I Raw Materials | II Food stuffs | III Manufactured Articles | IV Miscellaneous |
|----------------------|----------------|---------------------------|------------------|
| 1. Cotton Raw | 1 Rice | 1 Jute manufactures | 1 Opium. |
| 2 Jute, Raw | 2 Wheat | 2 Cotton „ | 2 Lac |
| 3 Wool | 3 Tea | 3 Leather | |
| 4 Oilseeds | 4 Coffee | | |
| 5 Hides and Skins | | | |

The relative importance of these groups during the period is clearly seen from the following figures --

| | 1899-00 | 1906-07 | 1913-14 |
|----------------------------|----------|----------|----------|
| | (mil. £) | (mil. £) | (mil. £) |
| I Raw Materials | 24 0 | 49·8 | 74·2 |
| II. Food-stuffs | 18·1 | 24 6 | 37·2 |
| III. Manufactured Articles | 14 0 | 21 4 | 29·7 |
| IV Miscellaneous | 6·1 | 8·5 | 3·5 |
| | 62·2 | 104·3 | 144·6 |

The relative importance of the Raw Materials is seen from the above figures to have grown during the period, and the growth in the exports of Manufactured Articles is seen to have been smaller than that in the case of Raw Materials,

though equal to that of Food-stuffs. The figures for the intervening years support the same conclusions as will be seen from the detailed treatment of each article throughout the period which is given in the following pages. In this chapter I shall deal with Division I.

I. RAW MATERIALS

COTTON

India has always grown cotton for internal consumption ; and the fact that the finest muslins used formerly to be exported from India is evidence that high-grade cotton was grown at one time in this country. Ever since 1788 the East India Company made special efforts in its Indian dominion to encourage cotton-growing for export to the then newly rising textile mills of Lancashire. The suitability of the soil of Berar for cotton-growing probably led to its being permanently leased from the Nizam in 1853, and the first project of a railway in India was for the purpose of linking up the cotton-growing districts of Gujrat and Berar with the sea-port of Bombay so as to reduce the cost of transport of that important raw material. Cotton was also being grown in the United States with slave labour, so when the Civil War came and there was a temporary cessation of that supply, the Indian cotton trade enjoyed an unprecedented boom. It was some time before the American supply reached the pre-war level, but after 1868 the expansion of the American crop was rapid and the quality of the article superior to that of the Indian, with the result that the latter was very soon ousted from the Lancashire mills and had to seek an outlet in the newly-rising textile mills on the Continent—in Germany, Belgium, Italy and Austria-Hungary. In the early nineties when these mills also began to use American cotton more and more and to look upon the Indian cotton as something to fall back upon or as a cheap substitute for purposes of admixture, the Indian cotton dealers took advantage of the newly-rising cotton mills

of Japan to secure a market for their raw material and Japan soon become the chief customer for Indian cotton. There was also a growing internal demand in the spinning mills of Bombay which had been steadily making headway in spite of various difficulties which will be discussed in a later chapter.

From 1899 to 1914 there was a remarkable growth in the production of cotton in India, in the quantity annually exported, and in the value of the exports (See the table and chart on p. 38.) The output increased from 9 million cwts at the beginning of the period to 20 million at its end. The figures of output given in the table are official estimates which do not always tally with the estimates made by the trade, though the two show greater approximation towards the close of the period. The official estimates are usually the lower of the two. Nevertheless, they are enough for purposes of comparison from year to year. There is no similar doubt attached to the figures of export which rose from 4 million cwts to 10 million during the period. The most striking growth, however, is in the value of exports which was £6.6 m. at the beginning and as much as £27.3 millions at the end. The chart shows this very vividly. The main cause of this rise in price is the fact that the world's demand for cotton has been growing enormously during these years and has only been restricted by the supply. The growth of population, the rising standard of living in the tropical and sub-tropical countries, the substitution of cotton for wool whenever possible, the various new uses to which cotton is now put, the improvement in the fineness and texture of cotton fabrics--these have been some of the factors leading to an almost insatiable world demand for cotton.

The market for cotton is now an international one. The three chief sellers in that market are the United States, India and Egypt. The American crop for the season ending August 31, 1913, was recorded as 51 million cwts. The Indian crop of 1912-13 was 16.4 million cwts and the Egyptian 6.6 million cwts.

for the same year. The internal consumption of cotton in the United States has been rapidly growing and was about 19 million cwts in 1912-13, still the major portion of the crop is exported. India roughly exports half her crop, and Egypt practically exports the whole of hers. There are other countries like Russia and China which produce cotton in substantial quantities, but they do not count in the export market as they consume nearly all they produce. So much for the quantities available from the chief exporting countries.

But the cotton coming from the United States, India and Egypt is not the same kind of article. All Egyptian cotton is of the finest long-staple variety, most of the American cotton is of medium or ordinary staple, Indian is practically all short-staple. In 1913-14 the average price of the first was 9 44d per lb, of the second, 7 2d, and of the third, 5 87d. The medium American dominates the market. Most of the cotton spun in Lancashire is ordinary American Upland. No doubt, most of the Sea-Island cotton exported from America and Egypt is also purchased by Lancashire spinners, but that forms a very small portion of the total quantity of cotton consumed in Lancashire mills. This extreme dependence on the United States has led the master spinners of the United Kingdom, especially since 1902, to look for other possible fields for growing cotton, preferably within the Empire. In view of the growing world demand for cotton the International Federation of Master-spinners has also interested itself in the work. One of the results of this work is the cultivation of Sea-Island cotton in Egypt with the help of irrigation canals from the Nile. The experiment has proved so successful that Egypt now takes the first rank and the United States second in the production of long-staple cotton. The conditions in Sind in India are very similar to those in the Nile valley so far as the soil and sunshine go. With the development of irrigation, therefore, Sind, like Egypt, may reasonably be expected to

produce substantial quantities of long-staple cotton. A fair beginning has already been made.

But the main problems in connection with Indian cotton are: (1) whether the quality of the bulk of her production cannot be improved, and (2) whether the yield per acre cannot be increased. As regards (1) it has already been stated that even the finest Broach stands last on the price-list of the international market. A reference to the table of figures on p. 38 shows that the United Kingdom occupies the lowest position amongst the purchasers of Indian cotton, and she has done so throughout the period, only France occasionally bidding for the last place. Of the 3·8 million bales of cotton consumed in the United Kingdom in 1912-13, 3·3 million came from the United States, ·35 from Egypt and a trifling ·05 from India. Next to Japan, Germany was the best customer for Indian cotton all through the fifteen years; but even in Germany the comparative position held by Indian cotton is seen from the fact that of 1·60 million bales consumed in that country in 1912-13, 1·26 million bales came from the United States, ·18 millions from India and ·10 from Egypt. Belgium stands third in the list of India's customers for cotton, but, again, of the ·2 millions bales consumed in 1912-13 in that country the United States account for ·17 and India only for ·08. Italy bought ·50 millions bales from the States and ·16 millions from India in the same year, and Austria ·60 million and ·15 million respectively. It is clear from these figures that the Continental mills regard Indian cotton merely as a cheaper substitute if medium American is too dear. The United Kingdom buys medium American whatever the price. The one fairly reliable market for short-staple Indian cotton is Japan. It appears from the table of figures that until 1910-11 Japan generally took one-third of the annual exports of Indian cotton, but that during the last three years of the period, as once or twice before, she absorbed as much as half the Indian exports of that article. Indian cotton exported to Central Europe does not return

in the form of piece-goods to India, but Japan sends back the cotton she purchases in the form of yarn, hosiery, grey piece-goods, etc. The short-staple Indian cotton is far too suitable for the coarser yarns spun by the Japanese mills to fear the competition of the medium American. But Japan is making strenuous efforts to grow more of the raw material within her own territory, notably Korea, and the development of the textile industry in Japan is bound to lead to a restricted demand for short-staple cotton and an expanded demand for medium and long-staple cotton in the near future. That is the course which the development of the textile industry has taken in the United Kingdom, on the Continent of Europe and in India itself in the last fifty years. It seems to be a wise policy, therefore, from every point of view for India to improve the quality of the cotton she produces. The question is how to do it.

The conditions of the cotton-producing tracts of India are not uniform. Cotton is produced on irrigated as well as monsoon lands. The length of time during which the crop ripens varies from five months in some parts to eight months in others. Out of a total of some 4·5 million bales of cotton (1 bale = $3\frac{1}{2}$ cwt) produced in India in 1912-13.

1·4 m was produced in the Bombay Presidency (including Sind.)

1·1 „ „ „ „ Central Provinces and Berar.

·5 „ „ „ „ Hyderabad (Deccan)

·5 „ „ „ „ the Madras Presidency (including Mysore)

·6 „ „ „ „ Punjab.

·3 „ „ „ „ Central India

The first two contain the important black cotton soil districts. Again, cotton competes with food-crops for cultivation on the same soil. Usually it is grown on the same soil once in three years. The crop needs a fair amount of moisture but plenty of sunshine. The latter never fails in India, and the crop only suffers on the monsoon lands when the rains have been too short or irregular. •

Various species of cotton are found wild in India, and the forms in general cultivation are very numerous, but most of them produce cotton of a short and coarse type. The reason why these are chosen seems to be that they require a shorter period of growth and give a larger and more certain yield than the long-stapled varieties. The supersession of hand-ginning by ginning factories, as leading to the mixture of all kinds of seeds, has been an important factor in the deterioration of Indian cotton. Good and bad cotton mixed up only fetches the price of the worst ingredient of the mixture, so that there is no incentive to the farmer to produce the better type. The creation of a market for the long-stapled variety is the first necessity. The work of segregating the superior indigenous varieties, of producing sufficient seed from them and distributing it amongst the farmers has for some years been taken up by the Agricultural Departments, with promising results. Efforts to introduce exotic varieties, especially American, have of course been made over and over again ever since 1788 and until 1902 that was the main channel into which efforts at improvement of the quality of cotton were directed. But though such types have been acclimatised in parts of Bombay and Madras, their cultivation is nowhere on a very extensive scale. The difficulty seems to be that commercial quantities of high-grade cotton are not produced unless there is a prospect of disposing of them profitably in a local market, and, on the other hand, a market for high-grade cotton cannot be organised unless substantial quantities of the stuff are forthcoming. That is the vicious circle. There is also a minor difficulty *viz.* the natural deterioration of the exotic varieties in a strange soil and climate. But that difficulty is more easily overcome. There are also alternatives like selection and segregation of superior indigenous types and hybridisation. To sum up, the problem of improvement of the quality of Indian cotton seems to be one of better market organization rather than one of technical improvements in the methods of cultivation.

The Indian farmer has produced and can produce finer cotton if it is made worth his while to do so.

(2) The average yield of cotton in India is put at no more than 100 lbs of lint per acre, in America the average is 200 lbs per acre, and in Egypt as high as 450 lbs. In Bombay and Berar, the two most important cotton producing parts of India, the crop depends on the monsoon and is, therefore, naturally liable to fluctuation with the character of the season, but in Sind, Punjab, United Provinces and Madras, where artificial irrigation is available, the yield should be more certain. Apart from the factor of moisture, the yield of course depends upon methods of cultivation employed and the kind of seed used for sowing. In both these matters the various experimental farms run by the Agricultural Departments do useful work of practical research and demonstration. The Indian farmer, though conservative, like his compeers all over the world, and illiterate in addition, has a tradition of untold centuries of agricultural experience behind him and is of an essentially practical turn of mind. He is indifferent to lectures on the theory of scientific agriculture, but if he sees better results produced by a change of methods, he is not very slow to adopt the latter. He is quite willing to introduce new crops or new varieties of crops, to use seeds of a uniform and superior quality and to employ more efficient mechanical contrivances if these things can be brought within his reach in a financial sense. He knows the value of farm-yard manure and yet burns cowdung cakes to cook his food because that is the cheapest form of fuel he can lay hold of. He understands the value of waiting in order to secure a better price for his produce on the market, but in many cases he cannot wait even till the crop is harvested but is pledged to deliver it when ready to the local dealer at a low price for the sake of getting some money in advance from him. In short, the question is not one of ignorance or conservatism so much as that of organisation of credit and of the purchase and sale of materials.

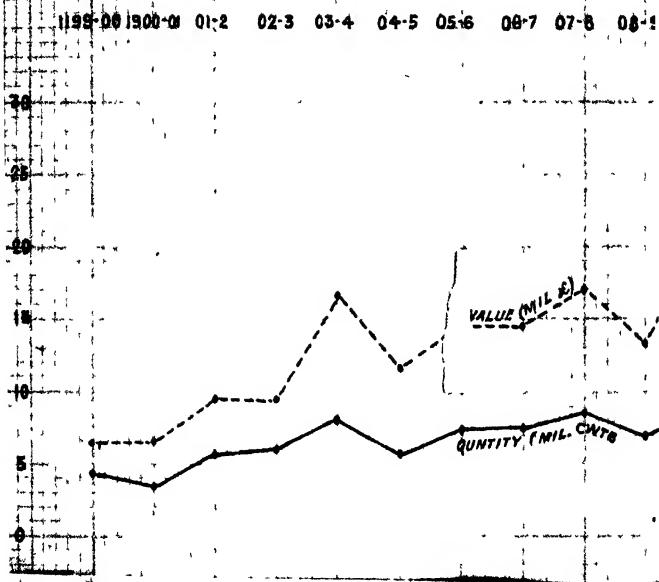
Exports of RAW COTTON 1899-1914 and its Principal Customers.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1910-10 | 1910-11 | 1911-12 | 1912-13. | 1913-14 |
|-------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| * Estimated Output (million cwts) | 9 00 | 12 82 | 14 46 | 16 21 | 15 21 | 14 07 | 14 85 | 17 32 | 13 50 | 15 00 | 17 57 | 15 37 | 14 28 | 16 28 | 20 68 |
| Quantity Exported (million cwts) | 4 37 | 3 57 | 5 70 | 6 04 | 7 93 | 5 65 | 7 39 | 7 40 | 8 56 | 6 79 | 8 96 | 8 68 | 7 32 | 7 37 | 10 62 |
| Value of Exports (million £) | 6 61 | 6 75 | 9 61 | 9 83 | 16 25 | 11 62 | 14 22 | 14 65 | 17 13 | 13 17 | 20 95 | 24 03 | 19 68 | 18 89 | 27 36 |
| Average Export Value (pence per lb) | 3 2 | 4 1 | 3 6 | 3 5 | 4 3 | 4 4 | 4 1 | 4 2 | 4 3 | 4 1 | 5 0 | 6 0 | 5 7 | 5 6 | 5 7 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| Japan (million £) | 3 73 | 1 22 | 4 48 | 2 65 | 3 45 | 3 92 | 4 57 | 3 70 | 4 82 | 4 46 | 8 02 | 8 25 | 9 47 | 9 66 | 12 93 |
| Germany | 76 | 1 18 | 1 19 | 1 82 | 3 09 | 2 01 | 2 46 | 3 14 | 3 63 | 2 13 | 2 85 | 3 54 | 2 22 | 2 20 | 4 00 |
| Belgium | 40 | 1 10 | 64 | 1 26 | 2 16 | 1 36 | 2 05 | 2 08 | 2 39 | 1 75 | 2 40 | 2 95 | 2 00 | 2 09 | 2 82 |
| Italy | 53 | 79 | 81 | 1 05 | 1 99 | 1 31 | 1 53 | 1 70 | 2 00 | 1 63 | 2 17 | 2 98 | 1 87 | 1 46 | 2 12 |
| Austria-Hungary | 28 | 74 | 62 | 97 | 1 51 | 98 | 1 18 | 1 25 | 1 22 | 76 | 1 66 | 1 94 | 1 30 | 1 00 | 1 94 |
| France | 24 | 54 | 44 | 74 | 1 25 | 51 | 95 | 1 10 | 1 25 | 89 | 98 | 1 07 | 81 | 82 | 1 34 |
| United Kingdom | 13 | 70 | 24 | 61 | 1 37 | 74 | 73 | 85 | 92 | 72 | 1 24 | 1 62 | 1 20 | 71 | 95 |

* The estimates are official estimates which are often lower than those made by the trade. The approximation between the two is greater towards the close of the period.

NOTE.—Final destination is accurately given from 1907-08 onwards. No break Lowerver is noticeable in the figures, say of Germany and Belgium, as might have been expected.

QUANTITIES AND VALUE RAW COTTON EXPORTED 1899-1911



Note.—The upper graph (---) represents Values in millions pounds sterling.
The lower graph (—) represents Quantities in million cwt.

in the interests of the farmer himself. Seed distribution depots connected with Government farms, co-operative credit societies, co-operative societies for the purchase of implements and manures and the sale of farm-produce are some of the means of solving the problem, and the extinction of illiteracy is necessary to the spread of such popular organisations. Only a beginning has so far been made.

It has been found in America that the best manure for the cotton-producing soil is cotton-seed itself. The crushing of cotton-seed for oil and the restoration of the cake back to the soil are, in consequence, rapidly gaining ground in the Cotton Belt of the States. In India the seed is largely used for feeding cattle, and latterly the exports of the seed have been increasing. How to restore the seed back to the soil in order to increase the yield is partly an industrial and partly an agricultural problem.

In conclusion it may be said that export figures show that raw cotton has done well during the period under review, but that an improvement in the quality and yield is very essential both from the agricultural and the industrial points of view.

JUTE, RAW.

Jute disputes with cotton the position of being the most important single article of export from India. Like cotton jute is an indigenous plant in India, but while the former was grown in small quantities all over the country for centuries, the latter is confined to the swampy grounds of Bengal and Assam. The very word 'jute' is derived from Orissa 'jhot' which is a corruption of Sanskrit 'jhat,' to be entangled. The fibre came into commercial importance comparatively recently during the Crimean War when the supply of Russian hemp was temporarily cut off. Since then the cultivation of jute for the purposes of export was actively encouraged by the Government in India, with the result that whereas the exports

of that article in 1856-57 were valued at £0 18 million they rose to £3·36 million in 1879-80 and to £5·38 million in 1899-00

Between 1899 and 1914, as the table of figures on p 42 shows, the outturn of the crop has risen, according to official estimates, from about 19 million cwts to as much as 31 and 35 million cwts. The monsoon rains are plentiful in Bengal (especially Eastern Bengal) and Assam, and they never fail. The danger to the jute crop arises not from drought but from unusually heavy floods which sometimes occur. The soil which is suitable for cultivating jute is however, also suitable for rice-growing, and so the amount of jute grown in one year is affected by the farmer's experience of the relative profitability of the two crops in the preceding year. The remarkable rise in the price of jute in 1905-06 led to a remarkably high crop in 1906-07. As the price soared still higher in that year, the crop in 1907-08 beat all previous records. Then came the inevitable slump in price and the crop of 1908-09 dropped to an abnormally low level (see table and also the accompanying diagram)

The quantity of jute annually exported rose from 9 million cwts in 1899-1900 to 17 million in 1912-13. The rise in value was even more striking, *viz*, from £5 3 million in the former year to £18·0 million in the latter. In 1913-14 the quantity was smaller but the value greater than in 1912-13 (see diagram). The fluctuations in the price of jute during the decade 1904-14, with a general upward tendency, have indeed been exceptional, and the trade has enjoyed great prosperity. Side by side with the external demand, the internal consumption, especially by the jute mills of Calcutta, has also grown during the period from about 10 to nearly 18 million cwts (see table). As in the case of cotton, nearly half the crop is consumed at home and the other half exported.

India holds a virtual monopoly in the jute-market. Efforts have been made to grow the fibre in Mexico, Algeria and Formosa, but with indifferent results. Fiji is said to be a

more promising field and so may be the Congo Valley and the Gold Coast of Africa. Persia grows some jute for local consumption. So far the Indian hold on the market has not been challenged, but the very high prices like those of 1910-14, bring in the possibility of the invention of synthetic substitutes and the certainty of the greater use of inferior but cheaper kinds of hemp

Jute as the cheapest fibre on the market has now practically supplanted hemp in the manufacture of ordinary bagging and sacking. The demand for jute in the international market, therefore, naturally depends upon the volume of agricultural produce like wheat or cotton which requires annually to be handled throughout the world. This volume has shown remarkable growth since 1900, hence the increased demand for jute and a rise in price in spite of increased production. There is also another factor which has helped to increase the demand for this fibre, *viz*, that owing to improved methods and better machinery for working it, the better qualities of jute are now used for making carpets and rugs and various other things which are not very durable but are showy and cheap and hence find a ready market. It is to the interest of India, therefore, to make two maunds of jute grow, if possible, where one grew before. Latterly the Agricultural Department of Bengal has addressed itself to this problem. As compared to cotton, the position of Indian jute in the world market is very much better, and India must by no means allow that position to be weakened.

The chief foreign customer for Indian jute throughout the period was the United Kingdom (*see* table). The average of her purchases for the first three years of the period was 46 per cent of the exports, the average for the last three years of the period, however, was only 40 per cent. Germany, which throughout held the second rank amongst the customers for jute, bought 20 per cent. at the beginning and 21 per cent. at the close of the period, the average being taken for the same

Exports of RAW JUTE 1899-1914 and its Principal Customers.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|--------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Outturn (million cwts) | 19.3 | 23.2 | 26.4 | 23.2 | 25.7 | 26.4 | 28.9 | 32.8 | 35.0 | 22.5 | 25.7 | 28.2 | 29.2 | 35.0 | 31.4 |
| Quantity Exported (million cwts) | 9.7 | 12.4 | 14.7 | 13.0 | 13.7 | 12.8 | 14.4 | 15.9 | 14.1 | 17.8 | 14.6 | 12.6 | 16.2 | 17.4 | 15.2 |
| Value of Exports (million £) | 5.38 | 7.24 | 7.86 | 7.41 | 7.81 | 7.97 | 11.41 | 17.89 | 11.98 | 13.22 | 10.05 | 10.30 | 15.03 | 18.03 | 20.55 |
| Average Export Value (shill per cwt) | 11.0 | 11.5 | 10.7 | 11.4 | 11.4 | 12.4 | 15.8 | 22.5 | 17.0 | 14.8 | 13.7 | 16.3 | 16.5 | 20.7 | 27.0 |
| <i>Principal Customer</i> | | | | | | | | | | | | | | | |
| United Kingdom (million £) | 2.62 | 3.27 | 3.52 | 3.28 | 3.48 | 3.29 | 4.87 | 7.70 | 4.67 | 5.52 | 4.28 | 3.88 | 6.53 | 7.35 | 7.82 |
| Germany | 1.08 | 1.46 | 1.52 | 1.47 | 1.54 | 1.74 | 2.15 | 3.93 | 2.55 | 2.85 | 2.22 | 2.40 | 3.39 | 3.82 | 4.49 |
| United States | 1.71 | 78 | 93 | 73 | 91 | 88 | 1.32 | 1.85 | 1.30 | 1.54 | 86 | 1.02 | 1.52 | 1.89 | 2.45 |
| France | 35 | 73 | 99 | 99 | 81 | 86 | 1.39 | 2.05 | 1.61 | 1.44 | 1.14 | 1.18 | 1.28 | 1.84 | 2.04 |
| Austria-Hungary | 25 | 42 | 39 | 40 | 43 | 52 | 71 | 88 | 79 | 77 | 44 | 60 | 88 | 1.10 | 1.31 |
| Italy | 22 | 30 | 25 | 33 | 34 | 32 | 50 | 74 | 49 | 48 | 50 | 66 | 60 | 92 | 1.13 |

QUANTITIES AND VALU RAW JUTE. EXPORTED 1899-19

1899-00 1900-1 1901-2 1902-3 1903-4 1904-5 1905-6 1906-7 1907-8 190

20

15

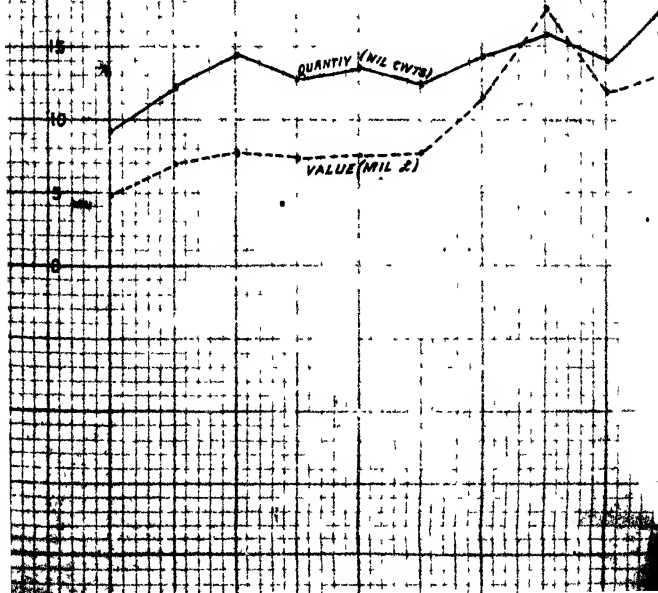
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QUANTITY (MIL CWTs)

VALUE (MIL £)



three years in each case. Similar figures for the United States worked out at 11 per cent. and nearly 11 per cent. respectively. France was practically on a par with the United States as a purchaser of Indian jute all through the fifteen years. Then came Austria with 5 per cent. at the beginning and nearly 6 per cent. at the close of the period. Italy stood next below Austria, with about 4 and 5 per cent. to her credit respectively. Amongst the minor customers was Spain which began the period with very low purchases but at its close bought more than half of what Italy did.

The relative positions of these various customers remained unaltered during the period, allowing for slight exceptions here and there. With the exception of the United Kingdom, however, all the rest of them kept up or slightly increased their respective shares in the trade. The disparity in the absolute quantities bought by the various countries is not great, considering that in 1913-14, for instance, out of the £20 millions odd worth of jute exported, the United Kingdom took about £7 millions worth, Germany £4 millions, United States and France £2 millions each, Austria and Italy £1 million each. It is clear that unlike in the other countries, notably in Germany, the absorption of Indian jute in the United Kingdom, though steadily increasing throughout the period, did not keep pace with the growing volume of the jute trade. Germany's relative ascendancy over the United States or France was kept up all through, but that of the United Kingdom over Germany was prejudiced in favour of the latter.

WOOL, RAW.

Wool is an article of quite a subsidiary importance in the export trade of India. In the list, given at the beginning of this chapter, of the main articles of export arranged according to their values, wool stands very near the bottom. Still, the exports of that article in 1913-14 were valued at over a million and a half pounds sterling; so it is worth while to go into the trade a little.

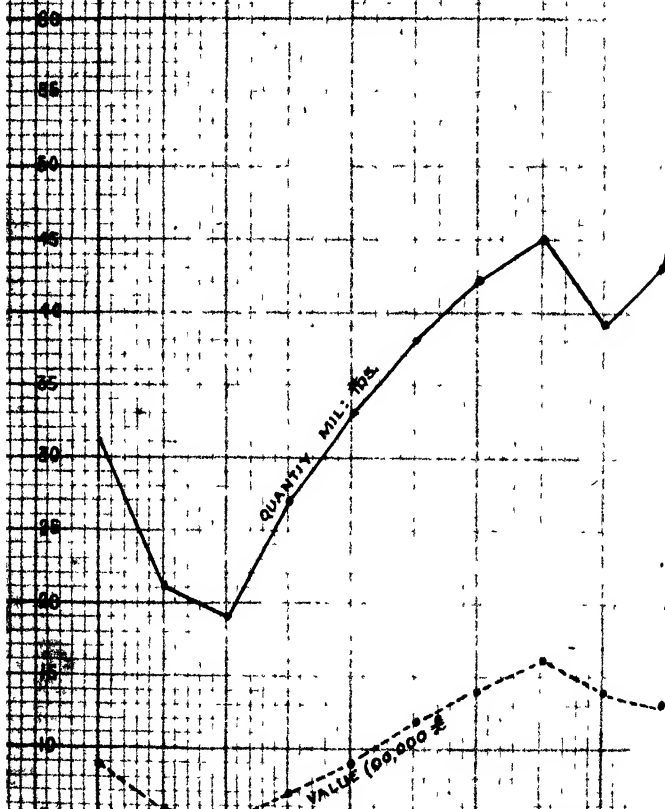
The accompanying chart and the table of figures show the general growth during the period in the exports of wool. The quantity exported was 31 million lbs in 1899-00. It fell during the next two years and was only 19 million in 1901-02; then it rose steadily year by year to 45 million in 1906-07. There was a drop to 39 million 1907-08, a recovery next year, and then a steep rise to 59 million in 1909-10, since when there was a steady decline to 48 million at the end of the period in 1913-14.

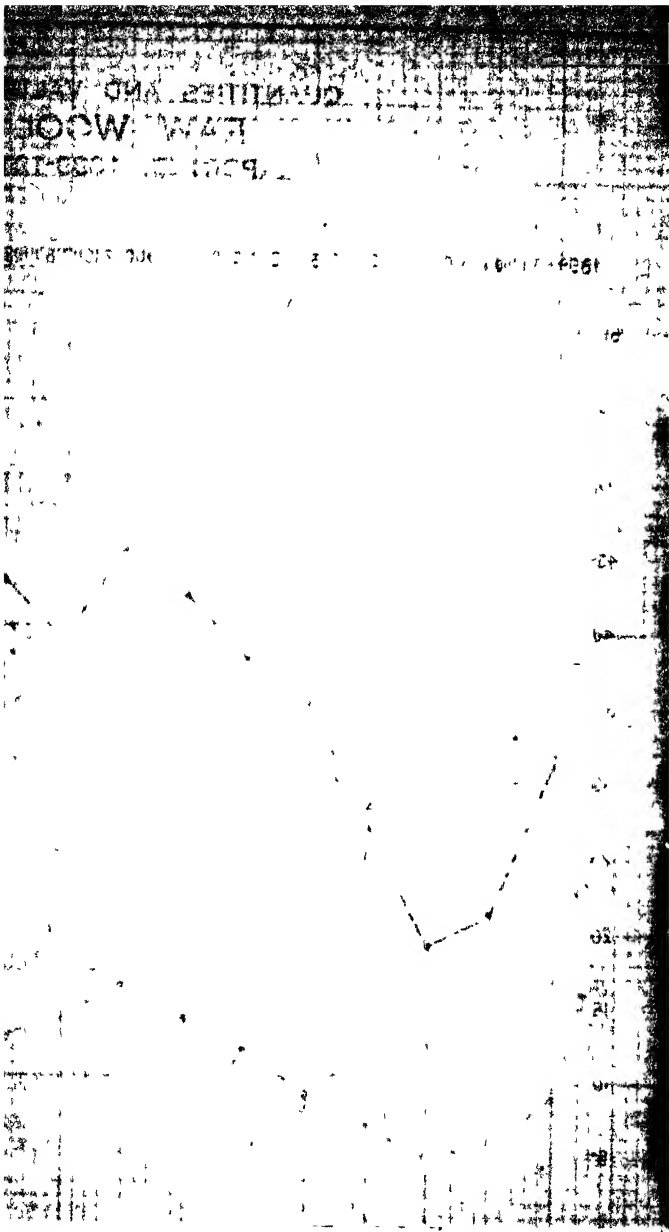
The curve of values shows a rise and fall generally in sympathy with the curve of quantities, with the single exception of the year 1908-09, when the quantity rose but value fell in comparison with the preceding year. The general trend of specific value was upward (*see table and chart*).

A good deal of the wool exported as Indian really comes into India from beyond the land frontiers, chiefly from Afghanistan. Of the 53 million lbs exported in 1912-13 the amount coming from these foreign sources was 21 million lbs; in 1913-14, similar figures were 48 and 25 million lbs respectively. The chief sources within India are the Punjab (notably the Native State of Kashmir) and the North-West Frontier Province (notably Hissar). Other sources are the Himalayan tracts of the United Provinces—Garhwal, Naini Tal and Almora,—Sind, Bikanir, etc. The pastures are nowhere very noble, and a drought puts them badly out of action. That explains the low exports at the beginning of the period in particular. Karachi does the major part of the export trade, and Bombay the remainder. The quality of the exports, especially of those from Karachi is very poor as appears from the fact that during the decade 1904-14 the price at Karachi (Kandahar wool) was about four or five pence per lb. and that at Bombay, eight or nine pence. Sand and dirt are allowed to get mixed with the wool, and the methods of production and of marketing in the interior are primitive.

QUANTITIES AND VALUE RAW WOOL EXPORTED, 1899-1908

1899-00 1900-1 1901-2 1902-3 1903-4 1904-5 1905-6 1906-7 1907-8 1908





Exports of RAW WOOL and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (million lbs) | 31 | 21 | 19 | 27 | 33 | 38 | 42 | 45 | 39 | 43 | 59 | 58 | 52 | 53 | 48 |
| Value of Exports (million £) | 90 | 60 | 52 | 77 | 91 | 1 26 | 1 40 | 1 61 | 1 40 | 1 38 | 1 90 | 1 89 | 1 72 | 1 75 | 1 68 |
| Average Export Value (Pence per lb) | 6 9 | 6 8 | 6 5 | 6 8 | 6 6 | 7 9 | 8 0 | 8 5 | 8 6 | 7 7 | 7 7 | 7 7 | 8 0 | 8 0 | 8 3 |
| Principal Customer | | | | | | | | | | | | | | | |
| United Kingdom (million £) | 89 | 59 | 50 | 76 | 89 | 1 13 | 1 33 | 1 54 | 1 36 | 1 36 | 1 85 | 1 86 | 1 65 | 1 70 | 1 62 |

Practically all the exports go to the United Kingdom where they occupy quite a subsidiary position both in the matter of quality and quantity. In 1912-13 the United Kingdom imported :—

| | | | |
|-----|-------------|------|--------------------------|
| 285 | million lbs | from | Australia |
| 184 | „ „ „ | | New Zealand. |
| 121 | „ „ „ | | South Africa (the Cape). |
| 56 | „ „ „ | | Argentina |
| 55 | „ „ „ | | India. |

All the 'fine wool' comes from the first two countries. The 'coarse' Indian wool is used mostly for carpets, rugs, cheap and mixed woollen goods, etc. There seems to be little scope in the world-market for Indian wool as it is, nor is there much prospect of India becoming a great wool-producing country. What she can do, however, is to work her wool up into coarse blankets, horse-clothing and such other stuff for local consumption as well as for export to other parts of Asia. Attempts at improvement of quality of the indigenous raw material should, of course, simultaneously be made.

SILK, RAW

Rawsilk is not one of the principal articles of export from India. The only reason for dealing briefly with it here is that the trade, which in the days of the company was an important one, has been on the down grade since then and is now in danger of extinction. It was the East India Company which made mulberry-silk-growing an important industry in Bengal. Large quantities of silk used to be exported from that province to Europe. The position changed when the temperate countries of Europe, especially France and Italy, took up silk-growing scientifically, and in the East, Japan set herself to the production of silk on modern lines. China had always been a great silk-producing country, but after thirty years of sustained efforts under the guiding care of the State, Japan beat her and herself became the largest silk-growing country in the world. China and Japan together supply two-thirds of

the world's demand for silk, and one-third of that demand comes from the United States alone. Indian silk has been driven out of that market by shipments from Canton, Shanghai and Yokohama. The table of figures on p 50 shows how the exports of raw silk from India declined during the period both in quantity and value. The specific value, however, did not definitely decline (*see table for detailed figures*). Since 1909 India actually began to import more raw silk than she exported.

The chief customer for Indian raw silk was France throughout the period. That country took from one-half to two-thirds of the quantity exported, and the United Kingdom took practically all the rest. But the latter country re-exported most of her imports of Indian raw silk to France, as the figures for the last five years of the period clearly bring out (*see table*). The United States used to buy insignificant quantities till 1911 when she ceased to buy altogether.

Broadly speaking, Indian raw silk has four varieties, *viz.*, (1) Mulberry, (2) Muga, (3) Eri and (4) Tasar. The first of these, mulberry, is the silk which has to compete in the world market with the fine products, also of the mulberry silkworm, reared in the temperate regions of the Far East and in Southern Europe. The part of India which is most suitable for the production of this class of silk is Kashmir where in the valley of the Jhelum mulberry trees naturally grow in large numbers. Ever since 1896 the State of Kashmir has taken a special interest in sericulture and has succeeded in the course of a few years in planting the industry firmly within its domain and turning it into a growing source of revenue for the State Exchequer. The introduction of improved Italian methods of sericulture, the importation of sound 'seed' from Europe and later the rearing of the same within the State nurseries, the use of machinery for reeling the silk, and the establishment of standard grades to facilitate the marketing of the product, were some of the ways by which the industry was

modernized and put on a sound financial footing Bengal is not as suitable a region for the mulberry as Kashmir, but the industry has for over a century been established there and the problem is one of arresting decay That problem was recognized by the Government as early as 1886, but as compared to Kashmir the tangible results of Government activity have been rather poor, considering, for instance, that the establishment of nurseries for the production of sufficient sound seed for all the silk-growing districts (not more than two or three) of the province had not in 1913 progressed beyond the stage of contemplation The Pusa Agricultural Research Institute has, however, successfully demonstrated the possibilities for (2) Muga silk, which is coarser than mulberry but for which Eastern Bengal and Assam provide a great field. Both mulberry and muga silks are derived from fully domesticated silkworms (3) Eri silk, which is like Muga in coarseness, is derived from a semi-domesticated silkworm which feeds on the castor-seed plant Eastern Bengal and Assam are, again, the special fields for development, but other provinces, too, where the castor plant grows, can take up the Eri-silk-rearing industry. The peculiarity about Eri silk is that it is the only kind of silk got without killing the insect, though of course it is the coarser on that account This fact has a great commercial importance in India if only it were made widely known to the consumers of silk for religious purposes (4) Tasar silk is entirely got from a wild silkworm which abounds in forest tracts, especially of the Central Provinces This peculiar origin, however, creates an element of uncertainty in the supply which is not helpful to a good market organization

Since 1897 the State of Mysore has encouraged a private firm in starting the Mulberry-silk-rearing industry in its territory on Japanese lines The Salvation Army has made similar experiments in other parts of India With the exception of Kashmir, however, silk-rearing industry cannot be said to be in a healthy condition anywhere in India

Waste silk is a by-product of nett silk, but an important by-product, contrary to what its name would indicate. It is used in a number of trades of by no means an insignificant character, *e g*, plush-making (for rugs), sewing-silk, crêpe-de-chine, ninons, lining for ladies' dresses, etc. As is but natural, waste silk is exported by all the countries which export raw silk. The exports from India during the period have been fluctuating till 1909-10, and since then have been on the downward grade, though the decline has been smaller than in the case of raw silk. The specific value was equally fluctuating though not definitely declining (*see table*). France is, again, the chief customer, generally taking about two-thirds of the quantity exported. The purchases of the United Kingdom were usually small, though the proportion varied from one-sixth to one-third. The complaint of the trade was that Indian waste-silk was found to be mixed up with cotton, clay, human and animal hair and such other extraneous matter, which had to be removed before combing and spinning the silk, and the removal naturally meant greater cost of production for the spun yarn. The sorting of the waste silk put on the market was also badly done. These things unnecessarily reduced the value of an otherwise unobjectionable material. Kashmir waste was an exception to this general description of Indian waste. Chinese waste silk was open to the same objections as the Indian, that explains why Japan dominated the market in this case too.

Cocoons were exported in increasing quantities during the period, the increase between 1910 and 1913 being specially noteworthy (*see table*). The principal customer was the United Kingdom, which till 1910 took anything between 50 and 90% of the quantity exported, France took the remainder. In 1911 and 1912 France took nearly 80% of the exports, but once more dropped to 20% in 1913. In the latter year Italy for the first time purchased

Exports of SILK and the Principal Customers, 1899-1914

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| SILK, RAW | | | | | | | | | | | | | | | |
| Quantity Exported (000 lbs) | 722 | 559 | 727 | 681 | 624 | 506 | 578 | 777 | 730 | 581 | 501 | 494 | 381 | 382 | 160 |
| Value of Exports (000 £) | 409 | 286 | 383 | 368 | 350 | 283 | 315 | 395 | 364 | 304 | 265 | 268 | 221 | 205 | 101 |
| Average Export Value (shil per lb) | 11 3 | 10 2 | 10 5 | 10 8 | 11 2 | 11 1 | 10 9 | 10 1 | 10 0 | 10 4 | 10 5 | 10 8 | 11 6 | 10 7 | 12 6 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| United Kingdom (000 £) | 169 | 86 | 137 | 178 | 132 | 148 | 135 | 119 | 111 | 100 | 23 | 29 | 12 | 6 | 10 |
| France (000 £) | 212 | 188 | 232 | 176 | 198 | 127 | 151 | 232 | 227 | 190 | 234 | 226 | 207 | 199 | 91 |
| CHASAM OR WASTE | | | | | | | | | | | | | | | |
| Quantity Exported (million lbs) | 1 21 | 1 03 | 1 16 | 1 24 | 1 13 | 75 | 1 13 | 1 09 | 1 09 | 1 18 | 1 18 | 1 14 | 1 09 | 94 | 90 |
| Value of Exports (000 £) | 55 | 53 | 56 | 64 | 65 | 42 | 56 | 57 | 52 | 51 | 67 | 57 | 63 | 46 | 51 |
| Average Export Value (pence per lb) | 11 0 | 12 3 | 11 6 | 12 4 | 16 0 | 13 4 | 12 0 | 12 6 | 9 3 | 10 3 | 10 8 | 12 0 | 13 9 | 11 7 | 13 6 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| United Kingdom (000 £) | 22 | 15 | 16 | 13 | 8 | 8 | 7 | 12 | 8 | 8 | 20 | 16 | 28 | 14 | 11 |
| France (,) | 32 | 38 | 39 | 50 | 56 | 33 | 47 | 43 | 39 | 38 | 41 | 37 | 32 | 29 | 29 |
| COCOONS | | | | | | | | | | | | | | | |
| Quantity Exported (000 lbs) | 13 | 42 | 67 | 101 | 85 | 85 | 68 | 70 | 119 | 69 | 88 | 209 | 275 | 352 | 133 |
| Value of Exports (000 £) | 6 | 2 0 | 3 8 | 6 7 | 5 3 | 5 3 | 4 2 | 4 5 | 8 0 | 4 4 | 5 9 | 10 8 | 21 1 | 25 5 | 11 2 |
| Average Export Value (pence per lb) | 11 0 | 11 4 | 13 4 | 15 7 | 15 1 | 15 1 | 14 8 | 15 4 | 16 0 | 15 3 | 15 8 | 12 4 | 18 3 | 17 4 | 20 3 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| United Kingdom (000 £) | 6 | 1 3 | 2 4 | 4 9 | 4 1 | 4 1 | 2 4 | 3 3 | 7 1 | 4 0 | 5 3 | 4 9 | 5 1 | 5 0 | 3 4 |
| France (,) | | 7 | 1 3 | 1 7 | 1 1 | 1 1 | 1 6 | 1 1 | 9 | 06 | 5 | 5 6 | 15 8 | 20 3 | 2 2 |
| Italy (,) | | | | | | | | | | | | 1 | 2 | 1 | 5 4 |

nearly 50% of the quantity exported (*see* table). That shows that France and Italy are potential markets for Indian cocoons

The reason why these countries have been buying more cocoons and less raw silk from India is that they can then do the reeling themselves by machinery upto the requisite grades of fineness and secure uniformity of size in the thread, which is not possible when the reeling is done by hand, as in Bengal

The rearing of cocoons is a cottage industry supplying spare-time occupation to the agriculturist and his family. The value of cocoons depends upon their size and the latter obviously depends upon the quality of the seed used provided, of course, that the worms are properly looked after. In France sound seed is given to the farmers and the latter bring back the cocoons. The fineness of the thread depends upon the smallness of the number of cocoons put together in making it, the bigger the cocoons, the smaller the number that has to be used, and the finer the thread. Bengal cocoons are very small. The Kashmir State has improved the quality of cocoons produced and increased their quantity by properly organizing the machinery for the production and distribution of sound seed within its territory. That is probably the explanation of the substantial increase in exports since 1910 and of the appreciably higher specific value which obtained particularly towards the close of the period (*see* Table for detailed figures)

OILSEEDS

The export-trade in Indian oil-seeds grew in value from six million pounds in 1899-1900 to seventeen million in 1913-14. At the beginning of the period the bulk of the trade consisted in linseed, rapeseed and sesamum. During the period the importance of ground-nuts, cotton-seed, castor-seed and copra grew so much that the latter came to be ranked along with the

former as forming the bulk of the trade The following figures bring this out clearly —

| | 1899-1900 | 1913-14 |
|-------------|-----------|-----------|
| | million £ | million £ |
| Linseed | 3· 0 | 4 4 |
| Groundnuts | ·06 | 3 2 |
| Rapeseed . | 1· 3 | 2 8 |
| Sesamum .. | 1· 3 | 1·7 |
| Cotton-seed | ·00 | 1 4 |
| Castor-seed | . · 3 | 1·3 |
| Copra .. | 06 | 1 0 |

These will now be considered in detail one after another.

LINSEED.

This valuable crop is grown in India almost exclusively for export, the proportion of the production consumed within the country being very small. Export of Indian linseed was first recorded in 1832 when it was 3 cwts. In 1860 half a million hundredweights were exported, in 1880 five million odd, in 1900 about the same quantity. The exports since then year by year are given in the table of figures on p 54 and the chart, both in quantity and value. A glance at these shows how the exports show violent fluctuations from year to year. Linseed is a cold weather crop like wheat, and like it is affected by the seasonal conditions. It is sown in the same regions as wheat, and either by itself or under food crops as the cultivator finds it profitable to do. The crop of one year comes into statistical account in the following year.

Prior to 1900 India held a dominant position in the world-market for linseed, but since then there has been a great increase in the cultivation of linseed in the world, particularly in Argentina and latterly in Canada. The following figures give the details of the world crop in 1913-14, and the

available *surplus* for export in the various countries of production —

| | Estimated Outturn (000 tons) | Quantity Exported (000 tons) |
|---------------|---------------------------------|---------------------------------|
| Argentina . | 995 | 918 |
| India . | 547 | 414 |
| Canada | 445 | 235 |
| Russia | 703 | 107 |
| United States | 453 | nil. |

(Figures taken from an article on Oilseeds in the Bulletin of the Imperial Institute, 1917, No 3, July-Sept)

It is clear from the above figures that the country which now dominates the market in linseed is Argentine India ranks second in importance, exporting about half as much as Argentine Canada exports over half as much as India, but is fast growing in importance Russia produces a huge quantity but does not count for much in the export market The United States, though a great producer, has yet to import, which she does from her northern neighbour

The crop in Argentine is as much subject to drought and frost as that in India, so that simultaneous failure in the two countries would tend to raise the price of linseed in the world market, and simultaneous abundance of yield to depress it Failure in one country may, on the other hand, be compensated by heavy yield in the other So much for the supply side As for demand, there is always a demand for it, as linseed oil is the most valuable drying oil and as such is in great request for making oil-paints, varnishes, printers' ink, etc Cold-pressed linseed oil, when refined, can also be used as a substitute for olive oil, and linseed cake is a most valuable feeding substance for cattle A look at the chart shows that the quantity and value curves of the Indian exports of linseed rise and fall as a general rule in good sympathy The only exceptions are the years 1900-01, 1904-05 and 1913-14. In other words, whatever quantity India has available for export

Exports of LINSEED and its Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|---------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Outturn (million cwt.) | 5.9 | 6.4 | 7.0 | 9.6 | 11.4 | 6.9 | 7.0 | 8.4 | 3.2 | 5.9 | 8.5 | 11.2 | 12.6 | 10.7 | 7.6 |
| Quantity Exported (million cwt.) | 7.2 | 5.0 | 7.3 | 6.3 | 8.6 | 11.1 | 5.7 | 4.3 | 6.1 | 3.2 | 4.6 | 7.4 | 10.4 | 7.0 | 8.2 |
| Value of Exports (million £) | 3.00 | 2.97 | 4.50 | 3.79 | 3.82 | 4.21 | 2.74 | 2.17 | 3.19 | 1.70 | 2.61 | 5.59 | 8.64 | 5.31 | 4.45 |
| Average Export Value (shil. per cwt.) | 8.3 | 11.8 | 12.3 | 12.0 | 9.0 | 7.5 | 9.6 | 10.1 | 10.4 | 10.6 | 11.3 | 15.1 | 16.6 | 15.1 | 10.8 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| United Kingdom (million £) | 1.13 | 1.32 | 1.80 | 1.34 | 1.34 | 1.46 | 81 | 77 | 1.11 | 71 | 1.05 | 1.96 | 2.53 | 1.62 | 1.64 |
| France | 47 | 50 | 67 | 63 | 52 | 72 | 50 | 55 | 86 | 54 | 60 | 94 | 1.35 | 1.02 | 1.26 |
| Belgium | 11 | 19 | 34 | 26 | 21 | 21 | 22 | 15 | 21 | 06 | 26 | 1.16 | 2.02 | 1.30 | 42 |
| Germany | 73 | 67 | 93 | 85 | 1.09 | 1.00 | 54 | 29 | 40 | 04 | 21 | 42 | 66 | 50 | 53 |
| Italy | 17 | 09 | 17 | 17 | 22 | 27 | 19 | 27 | 30 | 27 | 29 | 32 | 49 | 38 | 32 |

is absorbed at a fairly remunerative price (*see* table for fluctuations of specific value) The principal customers of Indian linseed have, practically throughout the period, been the United Kingdom and France, buying roughly about 30% and 15% respectively Belgium, Germany and Italy stand next in order Germany used to buy more than France till 1905-06 but has dropped to about half as much as the latter country since then Belgium, on the other hand, bought much less than Germany till 1907-08, but since then has been buying ever so much more, especially between 1910 and 1913. In fact, Belgium's purchases during those three years were greater even than those of France (*see* table of figures).

India exports linseed but has to import linseed oil. In 1913-14 the imports of the latter article amounted to 438,000 gallons Some oil is pressed in India, mostly by bullock presses, but it is inferior in quality to the imported article There is evidently a good field for the modernisation and development of this important industry in India The more oil is pressed in India, the more cake would be available for the cattle as food and the more saving would be effected in the transport of bulky goods

RAPESEED

While linseed is grown almost exclusively for export, rapeseed in India is grown mainly for internal consumption The seed is crushed mostly in the village bullock-presses, the oil is used for lighting purposes, and the cake as manure Vegetable oil is, however, steadily being superseded by mineral oil for lighting the home in India From the nature of the use to which it is put it is easily inferred that rapeseed is grown extensively in India But for the purpose of export the province of the Punjab chiefly counts Of the nearly five million hundredweights exported from India in 1913-14 about three and a half million went from Karachi alone, a little over a million from Bombay and a paltry hundred thousand or so from Calcutta The exports of Karachi are derived from

the Punjab and those of Bombay chiefly from the rapeseed crop of the United Provinces Rape is often grown inextricably mixed up with mustard in India Like linseed rape is sown in the autumn and reaped in early spring The crop may be grown by itself or under food crops The latter practice is naturally more common in the case of rapeseed than in that of linseed because the latter is a valuable crop in itself The following figures show the extent of the practice in both cases —

| | | 1911-12 | 1912-13 | 1913-14. |
|------------------|---------|------------|------------|------------|
| | | (000 tons) | (000 tons) | (000 tons) |
| Rape and mustard | { Pure | 699 | 683 | 715 |
| | { Mixed | 609 | 551 | 327 |
| Linseed | { Pure | 499 | 410 | 323 |
| | { Mixed | 140 | 128 | 59 |

As the maturing season of rapeseed lies, as in the case of linseed, towards the close of the official year, the crop of one season figures in the export statistics of the following year. The early crop of the season may, of course, appear in the exports of the same year

The accompanying table of figures shows the estimated output and the quantity exported year by year during the period 1899-1914 The output varies greatly from year to year according to the character of the season and hence the quantity exported also varies widely Roughly speaking, about 20% of the rapeseed produced in India is exported. The quantity curve and value-curve in the accompanying diagram show a fairly close correspondence, which means that, as in the case of linseed, whatever surplus India can offer for export is taken at a fairly remunerative price, the demand is always there Unlike in linseed, India dominates the market in rapeseed Her competitor is Southern European Russia whose exports in 1913-14 were 2½ millions cwts against India's

Exports of RAPESEED and the Principal Customers, 1899-1914

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|--------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Outturn (mil cwt) | 17 4 | 20 4 | 19 0 | 20 6 | 23 2 | 17 4 | 19 2 | 21 0 | 13 6 | 19 6 | 25 4 | 24 6 | 26 0 | 24 6 | 20 8 |
| Quantity Exported (mil cwt) | 3 4 | 1 7 | 6 9 | 3 9 | 4 3 | 5 1 | 1 9 | 3 7 | 5 3 | 2 7 | 6 6 | 6 5 | 4 7 | 4 3 | 4 9 |
| Value of Exports (mil £) | 1 34 | 82 | 2 97 | 1 64 | 1 68 | 1 82 | 81 | 1 64 | 2 88 | 1 87 | 3 12 | 2 10 | 2 34 | 2 40 | 2 85 |
| Average Export Value, (shil per cwt) | 7 8 | 9 6 | 8 6 | 8 4 | 7 8 | 7 1 | 8 5 | 8 8 | 10 8 | 11 6 | 9 4 | 9 5 | 9 9 | 11 1 | 11 6 |
| <i>Principal Customers, (mil £)</i> | | | | | | | | | | | | | | | |
| Belgium | 49 | 27 | 77 | 46 | 50 | 52 | 25 | 54 | 90 | 63 | 1 12 | 86 | 1 01 | 91 | 1 13 |
| Germany | 28 | 21 | 97 | 37 | 40 | 59 | 21 | 33 | 84 | 40 | 92 | 91 | 40 | 59 | 65 |
| France | 41 | 17 | 78 | 47 | 46 | 40 | 12 | 45 | 67 | 36 | 65 | 74 | 59 | 59 | 61 |
| United Kingdom | 09 | 10 | 22 | 19 | 20 | 16 | 17 | 27 | 34 | 11 | 23 | 34 | 17 | 22 | 17 |

5 mil. The Table shows how the specific value of the Indian exports of rapeseed rose continuously throughout the period. The two sudden jumps of 1900 and 1907 were exceptional.

The principal customers of Indian rapeseed have throughout the period been Belgium, Germany and France, taking roughly 35 per cent, 25 per cent and 20 per cent, respectively, of the quantity exported from India. Belgium materially increased her purchases after 1908. The United Kingdom bought much less comparatively, somewhere about 8 per cent. Oil and cake used, however, to be exported from the Continent to the United Kingdom. Both Germany and France got over eighty per cent of the rapeseed they crushed in 1913-14 from India. Germany got about ten per cent of her rapeseed supply from Roumania in the same year. There is no reason why India should not export the oil and cake instead of the raw seed, so as to supply the market for those products in the United Kingdom and eliminate the intervention of the Continental crushers. Japan has been trying to do that since 1908. She also competes in the seeds market, offering soyá bean to the European seed-crushers as an alternative to linseed or rapeseed.

SESAMUM (*also called til or jingih*) This plant has been cultivated in India from time immemorial as is evidenced by the fact that the Sanskrit word for oil is 'taila' meaning 'made of til'. Sesame is extensively grown all over India, either as a kharif (autumn) or rabbi (cold weather) crop. In the United Provinces it is a mixed crop grown under food crops, in all other provinces it is a pure crop. It has two varieties, white and black. The latter yields more and better oil, the former is used as food by itself or in sweetmeats. Sesame oil is largely used in India for culinary purposes and also as lamp-oil. Again, either the oil or the seed itself is used as the basis of indigenous perfumes. The failure of the rapeseed crop leads to an increased internal demand for sesame and hence less of the latter is available.

for export For the poorer people sesame oil serves all the purposes of butter Hence also there is a good demand for sesame oil in places like Mauritius, Ceylon and Java which contain a number of Indian coolie immigrants at work on plantations Sesame cake is a valuable food for cattle all over India.

The table of figures on p 60 gives the estimated outturn and the quantity of sesame exported year by year for the whole period 1899-1914 The output varies widely between six and twelve million hundredweights according to the nature of the season, hence the exports also fluctuate between one and three million hundredweights Roughly, about 20 to 25 per cent of the crop is exported The period as a whole shows no tendency for the exports to increase. The accompanying diagram brings out this latter fact at a glance. It also shows the pretty close correspondence between quantities and values exported The rise in specific value was, in fact, pretty continuous throughout the period (*see table*)

The destination of the exports of sesame is the Continental countries Sesame oil is used in Europe for the same purposes as olive oil, *e g*, soap-making, and although less widely known than the latter is commercially a much more important oil The principal customers of sesame during the period were France, Belgium, Austria-Hungary, Germany and Italy At the beginning of the period France overshadowed all the other customers and took 50 per cent and more of the Indian product, but at the close of the period her proportion dwindled down to 20 or 25 per cent The reason was the supersession of sesame by groundnut in the crushing mills of France The purchases of Belgium varied between 20 and 30 per cent and the general tendency was towards steadiness. Austria was a very minor customer till 1906 but after that year steadily increased her purchases so that at the close of the period her share was about 20 per cent. Germany's share was about

Exports of SESAMUM and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-1 | 1901-2 | 1902-3 | 1903-4 | 1904-5 | 1905-6 | 1906-7 | 1907-8 | 1908-9 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|------------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Estimated Outturn (mil cwts) | 5.4 | 8.9 | 7.1 | 11.4 | 12.1 | 6.7 | 7.7 | 10.8 | 5.7 | 9.2 | 11.2 | 10.2 | 7.9 | 9.4 | 8.1 |
| Quantity Exported (mil cwts) | 2.4 | 1.8 | 2.4 | 3.7 | 3.5 | 2.5 | 1.6 | 2.7 | 1.5 | 1.6 | 2.9 | 3.2 | 1.8 | 1.5 | 2.2 |
| Value of Exports (mil £) | 1.33 | 1.03 | 1.42 | 1.93 | 1.61 | 1.15 | .97 | 1.69 | 1.12 | 1.08 | 1.77 | 2.13 | 1.35 | 1.21 | 1.79 |
| Average Export Value (shd per cwt) | 11.0 | 11.4 | 11.8 | 10.4 | 9.2 | 9.2 | 12.1 | 12.5 | 14.9 | 13.5 | 12.2 | 13.3 | 15.0 | 16.1 | 16.2 |
| <i>Principal Customers (mil £)</i> | | | | | | | | | | | | | | | |
| France | 75 | 43 | 71 | 116 | 81 | 48 | 39 | 64 | 42 | 37 | 75 | 108 | 31 | 34 | 34 |
| Belgium | 12 | 22 | 35 | 32 | 36 | -26 | 35 | 53 | 30 | 17 | 13 | 30 | 30 | 27 | 55 |
| Austria Hungary | 0.4 | 0.5 | 0.3 | 0.9 | 1.3 | 0.8 | 0.5 | 1.1 | -1.5 | 2.4 | 2.3 | 2.7 | 3.2 | 2.9 | 3.1 |
| Germany | 12 | 10 | 14 | 14 | 11 | -0.8 | 1.0 | 1.9 | 1.3 | 1.0 | 1.4 | 1.2 | 1.5 | 1.3 | 2.7 |
| Italy | 15 | 16 | 14 | 15 | -0.7 | -1.3 | 0.1 | 0.9 | -0.6 | 1.3 | 1.2 | 2.9 | 1.8 | 0.8 | 2.2 |

10 or 12 per cent all through Italy's share was about 14 per cent at the beginning of the period. It went on getting steadily reduced till it almost reached 5 per cent in 1907-08, then it recovered and rose to about 10 per cent by the end of the period. On the whole, the export trade in Indian sesame does not hold out much prospect of expansion because of the competition of cheaper seeds like groundnut or palm-kernel, which can be used as substitutes. There is also the competition of Chinese sesame which has been getting keener since 1904. In 1913-14 China exported about the same quantity as India.

GROUNDNUTS

These are grown widely in India as a garden crop and even as an occasional field crop, but on a commercial scale they are grown only in Madras and Bombay. In the early nineties Bombay used to produce the bulk of the crop exported from India, but between 1895 and 1900 what with bad seasons, what with diseased crops, the exports rapidly declined and were practically threatened with extinction. Then a new variety was introduced from Mazambique in East Africa which gave a higher yield and also a greater percentage of oil from the nut. Consequently the crop once more found favour with the Indian farmer especially in Madras in the South Arcot district, where as in the neighbouring French district of Pondicherry, special efforts were made by the British and French Governments respectively to experiment with new disease-resisting varieties imported from abroad. Similar tests were also made in Bombay and with success, but Madras beat the head during this revival and became the chief producer of groundnuts in India for purposes of export.

The table of figures on p. 64 shows the estimated output and the quantity exported year by year during the period. At the beginning both the items were very small; then there was a slow growth till 1908-09, followed by a rapid growth during the last five years of the period. The estimates of the output are not very accurate specially in the earlier

years, but there is no doubt about the quantity exported annually and that remained practically steady between 1904 and 1909. One fact that does not appear in the trade statistics is that quite a large quantity of groundnuts, as much as half the exports from British India, if not more, find an outlet through the French port of Pondicherry and therefore escape record at the hands of the Madras Government officials, and the proportion taking that route is not always the same. The absence of growth in the exports till 1909 has been explained by the suggestion that even good varieties of groundnut introduced from abroad naturally deteriorate in a few years in Indian soil and conditions. The more probable explanation is that the plant drives its roots deep into the soil, thus necessitating deeper ploughing afterwards and the use of proper manure if the yield and quality of the crop are to be maintained. Now the farmer will not undergo all this trouble and expense unless the price is sufficiently stimulating. Groundnut competes with cotton in Madras as a crop suitable for the same soil, so the farmer chooses whichever appears to him likely to fetch a better price. One fact in favour of groundnut is that it can wait for rain longer than other crops as it drives its roots deeper down into the soil. There is always an internal demand for groundnut in India, for the oil is widely consumed in the country and, being cheaper, is used for purposes of adulteration with sesamum or rapeseed oil. The cake is used either as cattle-food or, if too dry, as manure for high-priced crops like sugar-cane. Most of the crushing is done by bullock-presses, but mills with modern machinery have been started, particularly round Calcutta and Rangoon, which import the nuts from Madras. Upper Burma has been found a suitable field for the cultivation of groundnut, and the crop is making good headway there. As a result of the internal demand just described, the exports of groundnut from India only range from about 25 to 35 per cent of the total crop. The percentage may be larger if the exports *via* Pondicherry are

taken into account. The accompanying diagram illustrates the close correspondence between the quantities and values of groundnut exported year by year, in other words, the market seems ready to absorb greater quantities without there being a depression in price. In fact, specific values steadily rose since 1903 (*see table*)

The principal customer for Indian groundnuts throughout the period was France which took over 80 per cent of the exports. Belgium, Germany, Italy and Austria-Hungary shared the remainder. Groundnuts from Senegal and other parts of West Africa yield a greater percentage of oil than the Indian 'nuts and also reach France in a better condition. They have, therefore, always been in greater favour than the Indian product at the principal French nut-crushing centres of Marseilles and Bordeaux. But the increasing demand for groundnut oil in latter years both in America and Europe gave Indian groundnuts the opportunity of pushing forward in the export market. The oil was formerly used in Europe chiefly for soap-making and as a lubricant. Then refined groundnut oil came to be used as an effective substitute for olive oil. When a process was discovered for completely deodorizing the oil, it became an important article of food, being used either by itself as a vegetable oil in place of butter, *e g*, in Southern Europe, or more widely in the manufacture of edible fats and lards. The world's demand for edible fats was increasing before the European War, and the supply of vegetable fats was found to be more capable of expansion than that of animal fats. As a result of the war and the extensive slaughter of animals which it involved on the Continent of Europe, the balance in favour of vegetable fats has been definitely emphasized for years to come. There is a good prospect, therefore, for Indian groundnuts of the right quality. West Africa has already been mentioned as one great competitor. The other one is China, especially in the market of the United Kingdom which has become quite as

Exports of GROUNDNUT and the Principal Customers, 1899-1914

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|--------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Outturn (million cwt.) | | 5 | 12 | 12 | 20 | 42 | 42 | 54 | 70 | 98 | 90 | 100 | 120 | 132 | 146 |
| Quantity Exported (million cwt.) | 1 | 2 | 0 | 16 | 19 | 16 | 13 | 17 | 15 | 17 | 32 | 36 | 38 | 48 | 55 |
| Value of Exports (million £) | 06 | 10 | 52 | 47 | 75 | 64 | 57 | 83 | 78 | 90 | 164 | 203 | 212 | 269 | 325 |
| Average Export Value (shil per cwt.) | 12 0 | 10 0 | 10 4 | 9 4 | 1 9 | 8 0 | 8 7 | 9 7 | 10 4 | 10 6 | 10 2 | 11 2 | 11 1 | 11 2 | 11 8 |
| Principal Customers | | | | | | | | | | | | | | | |
| France (million £) | 05 | 09 | 49 | 39 | 61 | 56 | 50 | 70 | 66 | -81 | 1 35 | 1 63 | 1 59 | 2 18 | 2 62 |

big a centre of the trade during the war as France was before. There is no reason, of course, why India should not bend her energies towards exporting refined groundnut oil rather than shelled nuts. That would lessen the demand for shipping space and make it possible to restore the cake back to the land as manure, either directly or through the medium of the farm-yard cattle.

COTTON-SEED

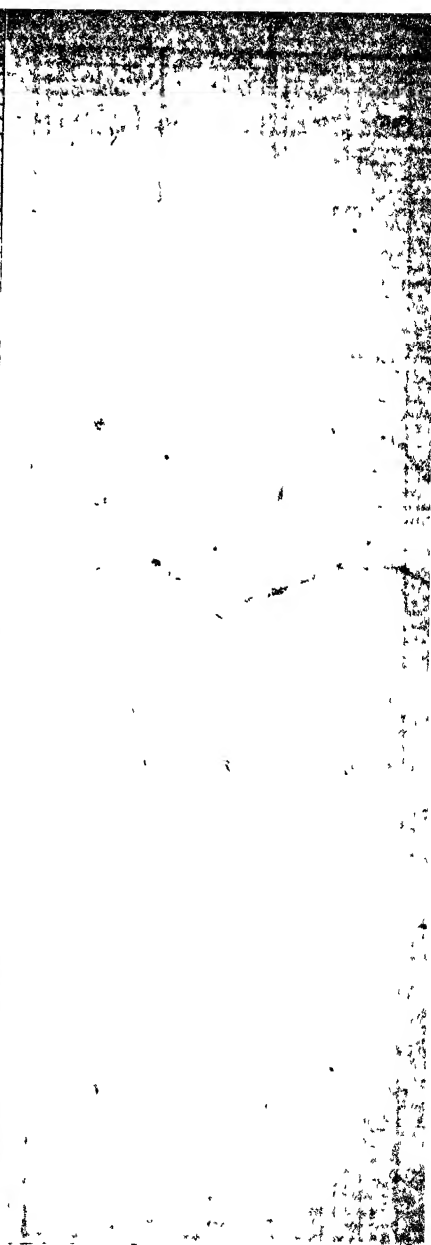
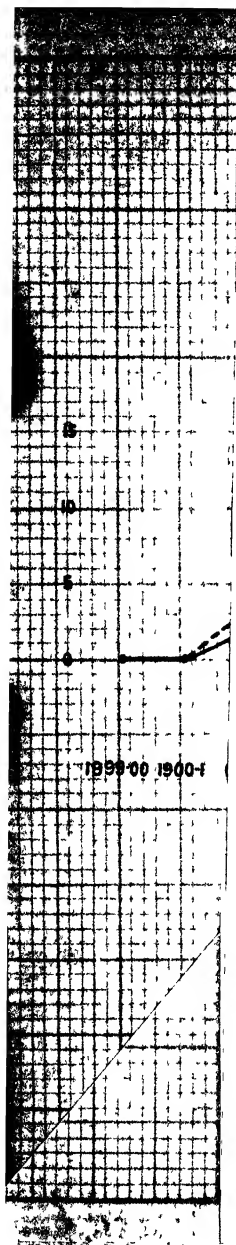
The export-trade in Indian cotton-seed has wholly arisen during the period under review. There were practically no exports of that article in 1899-00 and yet only within three years, in 1902-3, they ranked second in quantity and fourth in value among oil-seeds exported from India. Ten years after, in 1913-14, the exports of cotton-seed still ranked second in quantity, being only lower than those of linseed, but in value they ranked fifth instead of fourth, groundnuts having in the meantime risen in importance above cotton-seed. In value, linseed, rapeseed and sesamum always exceeded cotton-seed. The accompanying diagram and table of figures show the fluctuation of exports from year to year in quantity and value. Though the general tendency both of total quantity and of total value was that of a rise, the rise was by no means continuous. The specific value, however, rose continuously throughout the period, except for the years 1903 and 1904 when it slightly fell. (See the Table for detailed figures.)

The greatest producer of cotton-seed in the world is, of course, the United States, that country being the main source of cotton for the textile world. In 1913-14 the United States had an output of five million tons of cotton-seed against India's two million. But the United States does not export the seed, she exports cotton-oil and cake. In 1913-14 her exports of oil amounted to 35 million gallons, the United Kingdom exported 7.6 mil and China 1.8 mil. The exports of cotton-oil from India were so small that they were not separately recorded in the statistics. The chief market for

cotton-seed is in the United Kingdom which, unlike the United States, depends entirely upon imports for her manufacture of cotton-oil. Almost all the exports of Indian cotton-seed were absorbed by the United Kingdom all through the period, but Britain's purchases of Egyptian seed were greater still, *e g*, 428,000 tons in 1913-14 against 284,000 tons from India. It is probable that a portion of the Egyptian seed was re-exported from the United Kingdom to Germany, which country also made direct purchases from Egypt.

Upland American cotton-seed and Indian cotton-seed are both called 'white' or 'fuzzy,' owing to the lint still left on it. Egyptian and Sea-Island seed are both 'black'. The Americans take the husk off and produce fine edible cotton-oil and cake which they unload cheaply on the European market in huge quantities. (That was, at any rate, the position before the War.) Germany used largely to purchase American cotton-oil and meal and, if possible, the seed too. Continental cattle live indoors on meal for a large part of the year, hence the demand for rich cotton-meal and cake there. English cattle live more on pasture, so the English farmer does not mind an inferior quality of cake provided it is cheaper. Hence Germany could send undecorticated cake from Egyptian cotton-seed over to England. The undecorticated cotton-cake made in England from Indian cotton-seed was cheaper than the Egyptian and, therefore, could find a ready market. So then, the price of the Indian cotton-seed and the exports of that article are affected by the price at which the American cotton-oil is sold and also by the price at which the Egyptian seed is sold.

Since the discovery of successful methods of hulling cotton-seed, the supply of cotton-oil, pressed out of the pure kernel and highly refined, began rapidly to increase. That was particularly the case in the United States, as noted above. The demand for the refined oil also increased simultaneously as the latter could be used as a substitute for olive oil and also



Exports of COTTON-SEED and the Principal Customers, 1899-1914.

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| | 1899-1900 | 1900-1 | 1901-2 | 1902-3 | 1903-4 | 1904-5 | 1905-6 | 1906-7 | 1907-8 | 1908-9 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-------------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Quantity Exported (mil cwts) | 0 | 2 | 2 0 | 3 9 | 2 6 | 2 5 | 3 8 | 4 3 | 4 2 | 3 6 | 5 0 | 5 9 | 4 0 | 2 6 | 5 5 |
| Value of Exports (mil £) | 0 0 | 0 3 | 30 | 67 | 44 | 41 | 68 | 86 | 87 | 87 | 1 35 | 1 53 | 1 01 | 68 | 1 41 |
| Average Export Value (shil per cwt) | | 3 0 | 3 0 | 3 4 | 3 3 | 3 2 | 3 5 | 4 0 | 4 1 | 4 8 | 4 8 | 5 1 | 5 0 | 5 2 | 5 0 |
| Principal Customers (mil £) | | | | | | | | | | | | | | | |
| United Kingdom | 00 | 02 | 25 | 61 | 41 | 36 | 61 | 79 | 74 | -65 | 1 29 | 1 48 | 98 | 66 | 1 39 |

as a material in the preparation of margarine, which was growing in importance at the same time. The growth in the Indian exports of cotton-seed affords a parallel in a smaller way to the growth in the exports of Indian groundnuts, both being due to the increasing importance of vegetable fats in European markets. The non-edible varieties of cotton-oil are used in soap-making. The husk is said to be suitable for the manufacture of superior writing-paper.

The internal demand for Indian cotton-seed is very large. The seed is used by itself for fattening cattle. Not much seed, however, is crushed for oil. The growing scarcity of *ghee* (clarified butter) in the country indicates the possibility of pushing cheap, highly refined oils as substitutes. Even from the point of view of the home market, there seems to be a field in India for the development of the cotton-seed crushing industry on modern lines. The external demand for the products has already been touched upon. It is true, perhaps, that the prospects in the development of this industry are not quite so bright as in the case of crushing other oil-seeds with modern methods, but they are by no means negligible. And it always is good economy to put the seed back into the soil as manure in some form, as the Americans do with advantage. The Americans are also experimenting on using cotton-seed flour along with wheat-flour for bread-making. The suggestion may be of value in Indian conditions.

CASTOR-SEED

The castor-plant is essentially a tropical and sub-tropical plant. It grows in all provinces in India, either as a perennial or an annual plant. It exhausts the soil of its nitrogen, and the seed is not sufficiently valuable to induce the farmer to grow it as a crop by itself nor always even as a mixed crop with another seed or cereal. The large leaves of the plant give good shade and hence it is very much in favour as a hedge-crop for sugar-cane, turmeric, ginger, etc. In Assam the plant is abundantly grown, not for its seed, but for its leaves.

which serve as food for the eri silk-worm. Cattle, too, eat the leaves with relish, but the plant is peculiarly subject to defoliation by caterpillars. The resulting precariousness of the crop is another reason why it is not much in favour with the farmer. There is a good internal demand for castor-seed in India as the railway companies crush it into oil in power-mills of their own and use the oil for lighting the wagons. It is said to burn slowly, to give off less smoke and a cooler light. The mills centre chiefly round Calcutta and Madras. The Calcutta mills draw upon the seed from Bengal and the United Provinces and also partly from Madras. For purposes of export only the seed of the Bombay Presidency and the Nizam's Dominions counts, the port of Bombay doing practically the whole of the export trade.

The exports of castor-seed have been trebled in quantity during the period and more than trebled in value. (See the accompanying diagram and the table of figures). The growth has been fairly continuous throughout the period, the more so in the case of total value than as regards the total quantity exported. The specific value made sudden jumps in 1900, 1906 and 1910, the years 1901 to 1905 were years of downward trend, between 1905 and 1914, however, the general tendency was for the specific value to go up. (See Table). The reason of the general prosperity of the castor trade during the period under review is as follows. India has a virtual monopoly of the export of castor-seed in the whole world. The castor plant grows in the United States, but there are no exports of seed from that country. On the other hand, there were imports of Indian seed into it in substantial quantities during the last three years of the period under review. Java and Indo-China have, however, begun to grow the seed in commercial quantities, and Algeria and Brazil can become keen competitors in that trade. Thirty years ago India used to export castor-oil, not castor-seed. Since 1888-9 the exports of oil began to decrease and those of seed to increase. The

reason probably was that the Calcutta mills, which used to supply the oil for export, did not keep abreast of the superior methods introduced into the industry in Europe and America. During the War there was a great impetus once more given to the export-trade of Indian castor-oil.

The chief customer for the exports of Indian castor-seed was the United Kingdom throughout the years, 1899 to 1914. She increased her share of the trade from one-third to one-half during the period. The next best customer was France, but her share decreased from about 40 per cent. at the beginning of the period to 14 per cent. at its close. Belgium trebled her purchases during the fifteen years but the maximum reached was only about 10 or 12 per cent. Italy bought a noticeable quantity—about 10 per cent.—only during the last five years of the period, and the United States, as already mentioned, bought increasing quantities—14 to 16 per cent.—in the last three years before the War. 80 per cent. of the imports of Indian castor-seed into the United Kingdom used to go to Hull which had latterly developed into a great oil-crushing centre for various seeds. Castor-oil manufactured at Hull used to be exported in large quantities to Germany before the War.

Castor-oil is used chiefly as a lubricant for machinery and also as a preservative of leather goods. The importance of castor-oil has grown enormously during the War because of its special suitability as a lubricant for aero-engines, and that importance has by no means vanished after the conclusion of the War. The finer qualities of castor-oil are used for medicinal purposes. That constitutes a fairly constant demand. Indian castor-seed is preferred to any other for the manufacture of Turkey-red Oil which is an excellent mordant for that colour. Instead of importing that oil India could secure a virtual monopoly for its manufacture. Castor-cake is poisonous and, therefore, no good as cattle-food, but it is an excellent manure for crops like potato or sugar-cane. The cake may also be

Exports of CASTOR-SEED and Its Principal Customers, 1899-1914

| | 1899-1900 | 1900-1 | 1901-2 | 1902-3 | 1903-4 | 1904-5 | 1905-6 | 1906-7 | 1907-8 | 1908-9 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|---------------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Quantity Exported (mil. cwts.) | 8 | 8 | 13 | 17 | 15 | 14 | 12 | 15 | 19 | 16 | 19 | 21 | 24 | 22 | 26 |
| Value of Exports mil. £) | 34 | 43 | 57 | 61 | 46 | 46 | 52 | 76 | 101 | 70 | 84 | 109 | 117 | 109 | 133 |
| Average Export Value (shil. per cwt.) | 8.5 | 10.7 | 8.7 | 7.1 | 6.1 | 6.5 | 8.6 | 10.1 | 10.6 | 8.7 | 8.8 | 10.3 | 9.7 | 9.9 | 10.2 |
| <i>Principal Customers (mil. £)</i> | | | | | | | | | | | | | | | |
| United Kingdom . . . | 10 | 16 | 21 | 20 | 14 | 14 | 20 | 32 | 67 | 34 | 45 | 57 | 54 | 50 | 54 |
| Belgium . . . | 04 | 06 | 08 | 13 | 08 | 08 | 07 | 10 | 15 | 08 | 12 | 14 | 14 | 10 | 15 |
| France . . . | 14 | 16 | 18 | 17 | 08 | 08 | 11 | 13 | 13 | 14 | 10 | 13 | 16 | 16 | 20 |
| Italy . . . | 03 | 03 | 04 | 06 | 06 | 07 | 07 | 08 | 12 | 07 | 10 | 12 | 12 | 06 | 17 |
| United States . . . | | | | | | | | | | | 00 | 03 | 15 | 19 | 20 |

used for making gas where coal is scarce or expensive. In short, the general outlook for the exports of castor-seed is certainly good, but it is more in the Indian interest to export the oil rather than the seed and restore the nitrogenous cake back to the soil.

COPRA

(Dried coconut kernel)

The coconut-palm flourishes in India in the lower reaches of the Gangetic and Brahmaputra valleys and on the Coromandel and Malabar coasts. From the export point of view, the Malabar coast is the most important region. The ports of Cochin and Calicut do practically the whole of the export trade. Cochin oil is considered the best coconut oil and Cochin fibre, which probably comes, not from Cochin, but from the Laccadiv Islands, a couple of hundred miles off the coast, is considered the best fibre in the trade.

There was a remarkable expansion in the export trade of copra during the period. In quantity the exports rose from 97,000 cwts in 1899-00 to 763,000 cwts in 1913-14 *i.e.*, nearly eight times, in value the rise was greater still *viz.*, from £65,000 to £1 03 m. in the same years respectively *i.e.*, nearly sixteen times. (See the accompanying diagram and the table of figures.) The specific value of copra was more than doubled during the period. The rise was specially noticeable after 1906-7. (See the Diagram and Table.) What was the reason? It was as follows — Coconut is the richest in oil amongst the oil-bearing seeds and nuts, as the following figures show —

| | Percentage of oil |
|----------------------------|-------------------|
| Coconut | 60 to 65 |
| Groundnut, palm-kernel | 40 to 45 each |
| Linseed, rapeseed, sesamum | 30 to 35 .. |
| Cotton-seed | 13 to 18 |

In India coconut is largely crushed locally in bullock-presses and the oil used for cooking and toilet purposes. It

used also to be a common illuminant but has now been practically superseded in that respect by kerosene which is much cheaper. In Europe the value of cocoanut oil for soap-making has long been recognized and large quantities are still applied to that purpose in the United Kingdom, *e g*, by Messrs Lever Brothers, though palm-oil and other oils have latterly released cocoanut oil for use in the manufacture of more valuable articles. The French use it for making pomades and other luxury articles of toilet. The use of cocoanut oil in the manufacture of margarine has been found to lessen the difference, chemically speaking, between that substance and butter. Cocoanut butter, made from cocoanut oil, has secured independent recognition in the market, apart from its use as a substitute for butter. It is superior to butter, lard or tallow for culinary purposes. It does not easily become rancid. Bakers and biscuit-makers prefer it to butter for baking. Being free from fatty acids, cocoanut butter is more suitable to people with impaired digestion. Besides being the basis of nut-butter and a valuable constituent of margarine, the nut itself, in the desiccated or shredded form, is in great demand in the confectionery trade of the West. In India, too, it is an important article of food and a favourite constituent of curries and sweetmeats. The growing importance of vegetable fats in Western Europe and the peculiar suitability of coconut as a material in their preparation were undoubtedly the reasons for the rise in the price of copra indicated above, which in its turn led to the rapid growth in the quantity exported from India.

The position of India in the international market for copra may be gathered from the following figures —

Chief copra-exporting countries of the world in 1913

| | Quantity Exported (Mil Cwt) | Value of Exports (Mil £) |
|------------------------|--------------------------------|-----------------------------|
| The Philippine Islands | 1 6 | 1 98 |
| Java . | 1 5 | 1 39 |
| Ceylon . . . | 1 1 | 1 85 |
| India | 7 | 1·03 |

The chief customer for Indian copra throughout the period was Germany which used to take about 80 per cent of the exports. The remainder was shared by France, Belgium and latterly also by Russia, United Kingdom and Holland. The chief copra-importing countries of the world before the War were Germany and France.

Besides copra India also exported cocoanuts (whole), coir fibre, coir manufactures, cordage and rope, coconut oil and coconut cake (called 'poonac'). The tendency was for the exports of oil and poonac to decrease and for those of the rest to increase. It is regrettable that the exports of coconut oil should decrease and those of copra should increase, the more so, since in the case of the coconut oil industry it is not even a question of replacing bullock-presses by oil-mills run by power. The former are pretty efficient for the purpose and produce a more valuable cake than the power-mills. The price which that cake fetches pays for the oil still left in it. It is merely a matter of proper selection of the nuts for crushing, of the prevention of dust and dirt getting into the kernels while they are being dried, and such other things comparatively easy of achievement. In the case of the other seeds, as already mentioned under their respective heads, the bullock-presses are a rather wasteful method of expressing the oil and, therefore, need to be replaced by machinery. That means an entire recasting of the organisation of the industry which has obtained for centuries hitherto. That has, of course, to be faced if the otherwise inevitable decay of the system is to be arrested. And even in the case of the coconut oil industry machinery is bound to come in as labour becomes dearer, but for the present a more effective organisation of the domestic system of India may be able successfully to compete with the more highly organised factory system of the West. There are other industries connected with the coconut palm as it is a unique plant every part of which—the stem, leaves, the fibrous covering of the fruit, the shell, the kernel and the juice—is of great

Export of COPRA and the Principal Customers, 1899-1914

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (000 cwt) | 97 | 77 | 40 | 143 | 353 | 155 | 177 | 126 | 119 | 395 | 534 | 449 | 637 | 686 | 763 |
| Value of Exports (000 £) | 65 | 52 | 33 | 122 | 281 | 123 | 147 | 126 | 143 | 353 | 496 | 526 | 759 | 858 | 1 039 |
| Average Export Value (shul per cwt) | 13 4 | 13 5 | 16 5 | 17 0 | 15 9 | 15 8 | 16 6 | 20 0 | 24 0 | 17 8 | 16 5 | 23 4 | 23 8 | 25 0 | 27 2 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| Germany (000 £) | 49 | 44 | 31 | 102 | 148 | 87 | 131 | 97 | 78 | 167 | 357 | 409 | 563 | 687 | 657 |

utility. All those things are utilized in India and have been for centuries, yet there is plenty of scope for the application of modern methods of organisation and manipulation in all of them. That may, of course, truthfully be said of most of the arts and crafts practised in India for centuries past and practised to perfection according to the then-contemporary standards. The problem in each case is how to make things fit in with the new order which has come over the world since the advent of steam and electricity and the virtual annihilation of distance.

From the foregoing account of the various oil-seeds it seems clear that there is a growing demand for vegetable oils and fats in the world-market and, therefore, also for the nuts and seeds from which those oils and fats are made. Whether India is to go on supplying more and more of the raw nuts and seeds or to do the better-paid work of supplying the finished article is for herself to choose.

RAW HIDES

Raw hides have now become an important single item amongst the raw materials exported from India. The hides exported are cow-hides and buffalo-hides, in the proportion, roughly speaking, of two to one in weight and three to one in value. They are derived mainly from animals dying a natural death, the Hindus being generally averse from slaughtering cattle for food. There are slaughter-houses, of course, in big towns and near military cantonments, but the bulk of the hides consists of those collected by the special caste of 'chamars' who go up and down the country fleshing dead animals. If they do not get enough of the latter, they are said not to be disinclined to poisoning live ones, and they are credited with having made the latter into a subtle art.

The accompanying diagram and the table of figures show the quantities and values of raw hides annually exported from India during the period under review. The quantity was over a million hundredweights for the first two years, then

it fell to less than three-quarters of a million for four years ; again rose to a million for a couple of years ; then reverted to the low figures of former years , then steadily rose till it reached over a million once more during the last two years of the period . The figures for 1912-13 and 1913-14 were, however, lower than those for 1899-1900 and 1900-01 . The high figures reflect the high mortality of cattle during famine conditions . A substantial proportion of the cattle in India consists of old and worn-out animals and these are the first to suffer in times of scarcity of fodder .

The price of hides steadily rose during the period . In 1899-1900 the quantity was 1·18 million cwts and the value £3·28 million , in 1905-06 the respective figures were 94 million cwts and £3·48 million , in 1913-14 they were 1·11 million cwts and £5·53 million respectively (*see table*) . The Boer War at the beginning of the period and the Russo-Japanese War four years later were special causes of the rise in price , but the increased use of leather for various purposes was the main factor throughout the period in the rise of price of raw hides in the international market . India, however, did not benefit as much as she might have done from this rise of prices, and that for various reasons. In the first place, the cattle in India are not of a high grade . Breeding is little regulated so far as the vast mass of cattle goes . Then, the cattle are badly fed, *e g* , in rice-tracts mainly on rice-straw , hence they are miserably weak in many cases and fall easy victims to virulent diseases and famines . The chief distinguishing feature of Indian cow-hides is their small size and weight, the average weight being about 9 lbs per unit in the dry state, equal to about 24 lbs in the wet . Secondly, Dacca and Burma hides have a rather unfavourable reputation in Europe on other grounds . The hides are not properly cured for export . They are not properly fleshed , butcher-cuts are made in the hide during flaying , unnecessary and bad branding of the cattle does wanton damage to the hide , attempts are made to secure false weight for the hide

by heavily plastering it with salted earth. Dacca hides intrinsically are of good quality but are spoilt by bad treatment in the manner described. It is not of much use lecturing the people on those points. What has got to be done is very well indicated by the fact that a small bonus of two annas (two pence) per well-flayed hide produced a remarkable improvement in Bombay where nearly 200 cattle are slaughtered daily. That leads to the third point, *viz*, the organization of the trade. Before the War, the Germans, who bought a substantial proportion of the exports of hides from India, had their own buying organization on the spot which managed to keep the Indian prices as low as possible, though, of course, the latter fluctuated in sympathy with those obtaining in Europe and America. The internal trade in hides is quite as valuable in India as the export trade, and every province has, of course, a large or small share in the production of hides. The exportable surplus of raw hides is, however, mostly derived from the United Provinces and Bengal (chiefly Eastern Bengal). The port of Calcutta does 80 per cent of the export trade, Rangoon and Karachi share the remainder about equally between them. Karachi exports mostly originate in the Punjab. The Table shows the destination of the raw hides exported. Germany, as stated above, was the principal purchaser throughout the period, taking from 35 to 40 per cent. of the exports. Austria stood second, she increased her share from 8 to 20 per cent during the fifteen years. The United States bought very varying proportions ranging from 7 to 20 per cent, but was by no means a dependable customer. This is significant in view of the fact that though the United States is herself a large producer of hides, her purchases from abroad before the War used to amount to as much as £16 million annually, of which India contributed an almost insignificant proportion, *viz*, about 3 or 4 per cent, though the import duty of 15 per cent *ad valorem* was abolished by the Tariff Act of 1909. Italy bought about 12 per cent of the Indian

Export of RAW HIDES and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (mil cwts) | 1 18 | 1 28 | 07 | 67 | 67 | 70 | 94 | 1 09 | 67 | 76 | 83 | 85 | 94 | 1 20 | 1 11 |
| Value of Exports (mil £) | 3 28 | 3 51 | 1 91 | 2 01 | 2 11 | 2 47 | 3 48 | 4 27 | 2 87 | 3 18 | 3 41 | 3 59 | 5 08 | 5 37 | 5 53 |
| Average Export Value (£ per cwt) | 2 7 | 2 7 | 2 8 | 3 0 | 3 1 | 3 5 | 3 7 | 3 9 | 4 2 | 4 1 | 4 1 | 4 2 | 4 2 | 4 4 | 4 9 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| Germany | 96 | 1 25 | 70 | 78 | 84 | 96 | 1 34 | 1 58 | 1 25 | 1 31 | 1 35 | 1 44 | 1 49 | 1 78 | 2 04 |
| Austria-Hungary | 20 | 31 | 21 | 25 | 25 | 34 | 43 | 63 | 44 | 46 | 60 | 72 | 93 | 78 | 1 22 |
| United States | 75 | 64 | 37 | 25 | 18 | 27 | 48 | 52 | 20 | 27 | 23 | 16 | 22 | 97 | 69 |
| Italy | 39 | 42 | 30 | 23 | 33 | 43 | 53 | 1 | 36 | 51 | 46 | 59 | 49 | 67 | 56 |
| Spain | 01 | 01 | 02 | 10 | 14 | 15 | 19 | 29 | 23 | 30 | 34 | 27 | 30 | 34 | 29 |
| United Kingdom | 45 | 56 | 07 | 08 | 10 | 15 | 25 | 26 | 15 | 13 | 20 | 13 | 21 | 29 | 16 |

exports all through the period. Then came Spain whose purchases were practically nil till 1902-03 and then varied between 5 and 10 per cent of the quantity exported from India. The tendency at the close of the period was, in the case of Spanish purchases, towards a decline. Last of all stood the United Kingdom, whose share was 14 and 16 per cent respectively in the first two years of the period—the years of the Boer War—and 3 or 4 per cent for the remainder of the period. The United Kingdom used to purchase raw hides to the value of over £2 million annually, but India supplied a very small proportion of the same. The United Kingdom, however, used to purchase practically all the dressed or tanned hides exported from India. There is no reason whatever why India should export any hides in the raw state at all when tanning materials are so plentiful in the country and when there is such a ready market for leather and leather-goods within the country itself apart from the international market for those articles. I shall say more on this point in the section on 'Dressed or Tanned Hides' later on. Here it may only be emphasized that whether it be for the purpose of export or consumption within the country, the improvement of the quality of the Indian hides is undoubtedly essential, and so, attention may, in conclusion, once more be drawn to the various points noted above in that connection.

RAW SKINS

The raw skins exported from India may be goat-skins or sheep-skins or calf-skins. The bulk of the exports, however, consists of goat-skins, sheep-skins form a very small proportion, calf-skins are almost negligible in quantity. The skins of smaller creatures like foxes, rats and snakes are not turned to commercial account in India on any appreciable scale. The raw skins exported are mainly derived from goats and sheep slaughtered for food. The skins are regarded only as a by-product. Indian sheep are not distinguished either for their mutton or wool. They are not bred on a large scale. They

are mainly to be found on the mountain slopes of Northern India. Goats, on the other hand, are met with everywhere in India. Professional shepherds wander over Peninsular India in fine weather and get paid by cultivators for the droppings of their sheep and goats folded by night on the arable fields. Goats are also a source of milk. The female gives two or three kids twice a year, so the multiplication is pretty rapid, except when checked by the failure of the rains and the consequent scarcity of pasture.

The accompanying diagram and the table of figures show in detail the exports of raw skins in quantity and value between 1899 and 1914. The figures show fluctuations but are not affected by famines to anything like the extent of those of raw hides exported, for the reason already mentioned, *viz.*, that the hides are mainly derived from animals dying a natural death, whereas the skins mostly come from animals slaughtered for food. On the whole, the exports of raw skins at the close of the period are appreciably higher than those at the beginning both in quantity and value. The specific value, however, tended definitely to fall in the latter half of the period, this, in spite of the fact that so far as the quality goes, Indian skins occupy a better position in the world's market than Indian hides. What growth there is in the exports of raw skins has been at the expense of dressed or tanned skins, the exports of which have remained steady throughout the period. The reason is that Continental and American tariffs are so arranged as to encourage the importation of raw hides and skins from India but to discourage that of tanned hides or skins.

The shipping of raw skins is more evenly divided among the provinces of India than that of raw hides. Nevertheless, Bengal predominates in the export of goat-skins as in that of raw hides. Sheep-skins are mostly exported from Karachi. The principal purchaser of Indian raw skins was the United States throughout the period, her share being about 75 per cent. of the trade. The share of the United Kingdom was

about 6 per cent. for the major portion of the period, and the highest point it reached was 10 or 12 per cent, and that in the earlier years, thus the tendency was towards diminution. Moreover, most of what the United Kingdom imported was re-exported either to the United States or to France. The direct purchases by France were about equal to those by the United Kingdom in the latter half of the period, in the first half they were insignificant. Indian sheep-skins are almost wholly purchased by the United States. Both the goat-skins and sheep-skins thus imported by that country are converted by a rapid process of chrome-tanning into glace kid for which there is a great demand in Western Europe. India might save the United States the trouble of tanning her skins if she knew how to do that work efficiently, but more of this later on in the section on "Dressed or Tanned Skins."

Export of RAW SKINS and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (mil cwts) | 22 | 18 | 27 | 24 | 26 | 36 | 53 | 46 | 31 | 47 | 61 | 54 | 53 | 55 | 48 |
| Value of Exports (mil £) | 1 30 | 1 14 | 1 79 | 1 67 | 1 77 | 2 23 | 3 24 | 2 98 | 1 82 | 2 36 | 3 01 | 2 39 | 2 31 | 2 44 | 2 26 |
| Average Export Value (£ per cwt) | 5 9 | 6 3 | 6 6 | 6 9 | 6 8 | 6 2 | 6 1 | 6 4 | 5 9 | 5 0 | 4 9 | 4 4 | 4 3 | 4 4 | 4 7 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| United States (mil £) | 1 19 | 96 | 1 48 | 1 37 | 1 40 | | 2 35 | 2 03 | 1 31 | 1 86 | 2 33 | 1 69 | 1 70 | 1 76 | 1 66 |
| United Kingdom " | 08 | 13 | 24 | 21 | 17 | | 25 | 35 | 16 | 16 | 17 | 16 | 13 | 20 | 13 |
| France " | 01 | 02 | 02 | 02 | 10 | | 30 | 15 | 13 | 10 | 17 | 21 | 14 | 18 | 12 |

CHAPTER IV



MAIN ARTICLES OF EXPORT—(contd.)



II FOOD-STUFFS.

CHAPTER IV

MAIN ARTICLES OF EXPORT—(*contd.*)

II FOOD-STUFFS

RICE

The rice-crop flourishes in a damp, tropical climate. Regions combining sunshine with an assured rainfall are the most favoured for rice-production. Light rainfall may suffice if artificial irrigation is available. Almost every province in India has some of its cultivated area under rice, but the most important rice-producing tracts are only three. The following figures give the details for 1913 —

| | Area under rice (mil acres) | Yield (mil tons) |
|------------------|--------------------------------|---------------------|
| Bengal and Assam | 42 | 20·1 |
| Lower Burma | 7 3 | 2 9 |
| Madras . . . | 7 1 | 2 8 |

Lower Burma produces about the same quantity as Madras but only about one-sixth of what Bengal does. Three-quarters of the exports of rice from India, however, are derived from Lower Burma. Bengal accounts for practically the whole of the remainder, the share of Madras being very small. Even that small proportion does more credit to Bengal than the facts warrant, because much of the rice exported from Bengal comes originally from Burma, is par-boiled in Calcutta and re-shipped to Colombo. The surplus available for export in Burma was nearly 65 per cent of the production in 1913-14. Ten years earlier it was nearly 80 per cent. Other provinces of India have small surplus because rice is the staple food of the majority of the Indian people. When the rains fail in India proper, rice has, in fact, to be brought for internal consumption from Burma, where the rains never fail. The table of figures

on page 92 shows that the annual exports from India (Burma included) varied between one million and a half and two million and a half tons during the period under review. The chief cause of this variation was the diversion of Burma rice to India owing to shortage of rice-crops in the latter. The normal exports of rice from Burma to India amount to about 200,000 tons. In acute famine years they rise to over a million tons. Shortage of other food-crops in India also naturally leads to greater imports from Burma and hence to smaller exports to foreign countries. Another reason for the same phenomenon is the rise in the price of non-food crops like jute which enables the latter cultivators to consume more rice than usual. Such a rise in price also leads cultivators to substitute jute for rice on their fields as both grow on the same kind of soil.

In the first half of the period, up to 1906, the specific value of rice exported remained fairly steady at about five shillings six pence per cwt. In the latter half of the period the level was distinctly higher, reaching nearly eight shillings per cwt towards the close (*see table*). In early years rice was the largest single item in the Indian exports according to total value, later, that position was contested by raw cotton or raw jute. Nearly half the exports of Indian rice go to Europe where the rice is used mainly for distillation into spirits or for conversion into starch. The bulk of the rice, as already stated, is from Burma and is too poor in quality to be largely used for food in Europe. The table or Patna rice that is exported to Europe, of course, fetches much higher prices. The standard rice in the European markets, however, is Burma rice, as over 60 per cent of the imports of rice into Western Europe come from Burma. Burma rice has to compete with rice from Siam and Cochin-China on the one hand, and, on the other, with substances like maize and potatoes which can also be used for making spirits or starch. The exports from Burma are all practically packed between January and

June, and the rice from the Far East also arrives in Europe during the same months. This has a weakening effect on price. Java, being south of the equator, harvests its rice six months later, puts it on bare markets and secures better prices. Java has no great surplus for export, in fact, she imports some rice from India. But the instance only shows that if the Indian exports of rice were spread more evenly over a longer period, better price might result and there might also be some saving in freights. The development of the rice-milling industry in Rangoon was an important factor in the growth of the export-trade in rice, as husked rice is 50 per cent. in volume and 60 per cent. in weight of paddy or unhusked rice. Most of the rice exported is cargo rice which contains from 5 to 20 per cent. of paddy to prevent its heating. Only Ceylon takes paddy or 'par-boiled' rice in large quantities. The rice-mills in Rangoon use the husk as fuel and economize in that way too. The rice used for food has, of course, to be re-milled and polished in Europe. Germany used to do a good share of that work before the War and she also had an important interest in the Rangoon rice-milling industry and the rice-trade in general. Rice has been the only article since 1882 which pays an export duty in India. The duty has always been 3 annas per maund (82½ lbs) or 5*d* per cwt. since 1885. This works out at the prices in 1913-14 at about 6 per cent. *ad valorem*. The inferior qualities of rice in Cochin-China pay the same amount of duty when exported.

India is the largest exporter of rice in the world. Nearly half the exports go to Europe as already mentioned. The other half mainly goes to Asiatic countries like Ceylon, the Straits, Java, the Philippines, Japan and sometimes Southern China, but a good proportion goes to Indian immigrants in East Africa, Mauritius, the Cape and Natal, and some even finds its way to the West Indies. In short, wherever the Indian or Chinese labourers go in search of work, there Burma rice follows them and forms their chief article of food. Taking

the various markets individually, Ceylon is seen to have been the best customer of Indian rice throughout the period, 1895 to 1914 (*see table*) In 1913-14 Ceylon purchased £3 million worth out of a total value of £17·5 million *viz*, nearly 17 per cent At the beginning of the period her share had been higher still, *viz*, nearly 20 per cent Ceylon, however, can hardly be regarded as a foreign customer Trade with Ceylon is really a part of the coasting trade of India It is amusing to see how historical accident has led to Burma being included and Ceylon excluded from India Germany stands second in the list.

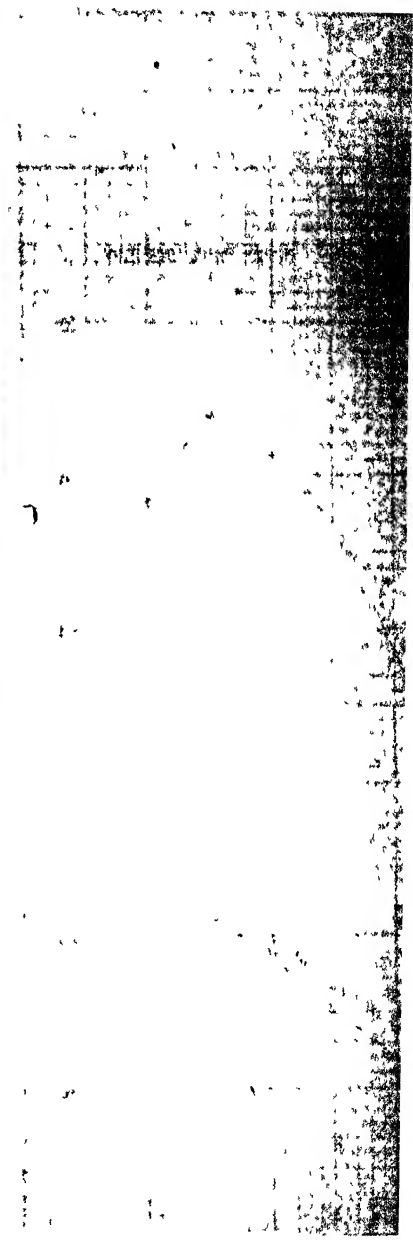
She was the foremost occidental purchaser of Indian rice Her purchases were quite insignificant at the beginning of the period, but since 1904 she became an important customer and at the close of the period, her share in the trade was about 12 per cent Then came the Straits Settlements, a good proportion of whose purchases have always been for eventual re-shipment to China and the Philippines There is, however, a good local demand from the Indians and Chinese in the Malay Peninsula and the adjacent islands The fourth place in the list of important foreign customers of Indian rice is occupied by Holland Until 1903-04 that country purchased practically no rice from India In that year its share in the trade was about 5 per cent Since then it steadily rose, and in 1913-14 was nearly 12 per cent As in Germany so in Holland Indian rice was largely used for purposes of distillation, the better qualities were re-milled and polished and exported to England and other adjacent countries Austria increased her share of the trade exactly in the same proportion as Holland did, her purchases being only a little less than those of Holland year by year (*see table*) Japan bought very little in the first three years of the period, between 1902 and 1906 her purchases were almost on the scale of those of Ceylon, then she made determined efforts to become self-sufficing in the matter of rice, that being the staple food of her population, and her purchases from India sank to very

low proportions between 1906 and 1911, in the last three years of the period, however, she had, again, to purchase increasing quantities from India, in spite of her increased home production and of the stimulus to rice-production which she gave to her dependencies of Korea and Formosa. The reason for Japan's growing dependence on outside sources for her main food-supply is the rapid growth of population combined with the growth of manufacturing industries. The last of the important customers of Indian rice was the United Kingdom. Her share of the trade declined from about 12 per cent of the total at the beginning of the period to about 6 per cent towards the close. The total value of her purchases of Indian rice was pretty nearly the same at the beginning as at the end of the period. In spite of the re-adjustment of trade figures since 1907 so as to show the final destination of the Indian exports, the figures accredited to the United Kingdom, and on a much smaller scale, even those accredited to Germany, are both believed to contain a certain proportion of goods to be re-shipped elsewhere sooner or later. Germany, for instance, might forward some Indian raw cotton to the Polish mills, Britain might send some of the raw hides on to the United States or some of the rice to Cuba or Trinidad. Not all these transactions can always be faithfully reflected in the trade figures. However, the United Kingdom did use to make starch out of her imports of Indian rice, and the term Patna rice shows the source of some of the table rice used in that country.

It has been already stated that Lower Burma is the granary which to some extent is annually drawn upon by other parts of India, especially Bombay and Madras, and which is the only hope of the Indians in times of famine. Compared to the plains of India Lower Burma is thinly populated, but the growth of the population there has been very rapid during the last two decades. There is little room for the extension of rice-cultivation in the proper rice-region of the delta of

Exports of RICE and the Principal Customers, 1899-1914

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Output (mil cwts) | 451 | 413 | 384 | 469 | 439 | 448 | 432 | 426 | 378 | 390 | 556 | 556 | 600 | 568 | 562 |
| Quantity Exported (mil cwts) | 318 | 310 | 337 | 470 | 444 | 488 | 422 | 380 | 377 | 296 | 383 | 473 | 513 | 543 | 483 |
| Value of Exports (mil £) | 8.67 | 8.76 | 9.23 | 12.52 | 12.63 | 12.98 | 12.27 | 12.21 | 13.43 | 10.46 | 12.00 | 15.34 | 19.12 | 21.47 | 17.59 |
| Specific Value (shil per cwt) | 5.5 | 5.6 | 5.6 | 5.3 | 5.0 | 5.3 | 5.8 | 6.4 | 7.2 | 7.2 | 6.3 | 6.5 | 7.5 | 7.9 | 7.3 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| Ceylon (mil £) | 1.72 | 1.90 | 1.73 | 1.66 | 1.72 | 1.81 | 2.14 | 2.53 | 2.19 | 2.01 | 2.20 | 2.72 | 2.94 | 3.18 | 3.16 |
| Germany " | 16 | 10 | 25 | 11 | 1.27 | 1.36 | 1.31 | 1.90 | 2.04 | 1.45 | 1.86 | 1.95 | 2.33 | 3.13 | 2.09 |
| Straits Settlements | 1.02 | 1.41 | 1.51 | 2.35 | 2.04 | 1.37 | 1.37 | 1.25 | 1.53 | 97 | 1.14 | 1.73 | 2.77 | 3.24 | 1.91 |
| Holland " | 003 | 002 | 04 | 02 | 58 | 79 | 59 | 88 | 1.09 | 86 | 1.08 | 1.26 | 1.37 | 1.44 | 2.02 |
| Austria-Hungary " | 01 | 10 | 06 | 22 | 61 | 91 | 58 | 80 | 1.01 | 73 | 99 | 99 | 1.04 | 1.23 | 1.37 |
| Japan " | 08 | 00 | 03 | 1.08 | 1.97 | 2.34 | 1.82 | 80 | 86 | 14 | 06 | 37 | 1.13 | 1.81 | 1.07 |
| United Kingdom " | 1.10 | 91 | 94 | 81 | 1.04 | 1.09 | 99 | 83 | 1.11 | 79 | 84 | 1.02 | 93 | 1.30 | 1.12 |



the Irrawaddy, though irrigation in the more inland and outlying parts may add somewhat to the cultivated area under rice. The chances of keeping up and increasing the available surplus for use outside the province seem to lie in resorting to methods of intensive cultivation. Owing to the alluvial nature of the soil and the annual floods of the Irrawaddy, the yield in Lower Burma is good, in spite of the continuous use of the land and the absence of manuring. But there is evidently much room for improvement, considering that the yield in Japan, Spain and Egypt is nearly three times as great. Japan, particularly, would seem to be a good model to follow in the rice-tracts of India in general, because Japan, like India, is a country of small holdings. 70 per cent of the holdings in Japan are of 2.75 acres each, and only 3 per cent are over 7 acres each. The room for improvement of quality especially in Burma, is only too obvious, after what has been said about the uses to which Burma rice is put in Europe. Poor labourers would, of course, buy the poor but cheap quality for food, but better quality means better price in the world-market.

WHEAT

The chief wheat-growing regions of India are the Punjab (including the North-West Frontier Province) and the United Provinces. Between them they contain sixty per cent of the total area under wheat in India. The remaining forty per cent is shared by the Central Provinces (including Berar), the Native States of Central India, Bombay and Bihar in decreasing proportions. Wheat is the major crop of the Punjab as it occupies a third of the total cultivated area of that province. In the United Provinces the proportion falls to a fifth of the total area under the plough, in the Central Provinces it is as low as one-tenth, and smaller still in the rest. More than half the wheat-area of the Punjab and the United Provinces is artificially irrigated. The total annual outturn of the crop, however, is materially affected by the conditions of the season. The bulk of the crop is sown in the

autumn and reaped in April and May. It may be mixed with barley, linseed, gram, etc, or raised pure in rotation with a leguminous crop. In Northern India, especially in the Punjab, wheat is a common article of food. The flour sold to the people for making 'chapattis' need not be of pure wheat, it may be of wheat and gram mixed half and half. That partly explains why the two are grown together. In the other provinces wheat is grown for the purpose of export rather than for home consumption. It competes with cotton on that account, for both require similar conditions of soil and climate for their growth.

The total yield of wheat per annum in India ranges from 5 million tons in very bad years to 9 million tons in very good years. The quantity exported shows greater variations than any of the other staples of the Indian export trade, as the accompanying diagram and the table of figures show. In 1900-01, as little as 2,500 tons were exported, in 1904-05, on the other hand, a record of over two million tons was reached. Apart from the total yield of the wheat crop of the year, the main factor in these variations is the outturn of the other food crops of the season. When these fail owing to a failure of the monsoon, the internal demand for wheat, and hence its price, rises to such an extent that it does not pay to take the trouble of exporting the wheat. Exports grow when there is a good difference between the price ruling in the European market and that at which purchases can be made in the Punjab. A difference of ten or eleven shillings per quarter used to suffice before the war to encourage exports of Indian wheat. With such extreme variations as have already been noticed, it is not very useful to make any statement about the general tendency of the exports of wheat, yet it may roughly be stated that the quantity trebled and the total value more than quadrupled during the period under review (*see table*). The average export value was about five shillings sixpence per cwt at the beginning of the period,

and it rose to over seven shillings at its close. In famine years it rose to eight shillings and more, but in general the level of prices paid was distinctly higher after 1905 and the tendency was towards a rise. The heaviest shipments of Indian wheat take place in the month of May, and the bulk of the wheat is exported between April and June. Karachi does three-quarters of the trade, Bombay and Calcutta share the remainder about equally between them. The market for the wheat exported lies entirely in Europe, and chiefly in Great Britain. The wheat arrives at a favourable season of the year when the British-grown wheat has already been consumed, the wheat from the Southern hemisphere (mainly from Australia) has also been absorbed and the main shipments from North America are not yet due. Owing mainly to a bad form of contract insisted upon by the corn-trade merchants in London, there used to be constant complaints, prior to 1906, about the excess of dirt and foreign matter contained in the shipments of Indian wheat. What used to happen was that the price of Indian wheat was fixed on the assumption that it always contained 6 per cent of dirt or seeds, shipments actually containing a much smaller proportion got no benefit in the form of a higher price, so that pure parcels of wheat were deliberately adulterated with mud and seeds to make up the maximum proportion allowed by the contract. When in 1906-7 the Government of India, after inquiring into the inevitable percentage of foreign matter which a cargo of wheat would contain, fixed 2 per cent as the maximum allowable and got the altered form of contract adopted by the trade, improvement was rapidly effected. This is a very significant instance of how vital some of the details of the organisation of the market are to the prosperity of the whole trade. Attention has already been drawn at the right place to the trade in raw hides and raw cotton which afford other instances of the same phenomenon.

The chief customer for Indian wheat was the United Kingdom whose share of the trade was 75 to 80 per cent.

throughout the period (*see table*) That country requires to import 6 million tons of wheat annually to satisfy the needs of its population In the British market Indian wheat has to compete with wheat from Canada, the United States, Argentine, Australia and Russia Of these Canada is the most formidable competitor Her production and exportable surplus were very rapidly increasing during the period under review Her wheat is of good quality, is sorted carefully into various grades before export and certified according to grade by Government inspectors The trade is very well organised and the buying in Liverpool is done on the basis of the registered grades, no samples being required The wheat trade of the United States is organised on similar lines, but the certificates issued by the municipalities or the Chambers of Commerce in the States do not inspire the same confidence as those issued by the Canadian Central Government. The United States, again, is becoming less and less important as an exporter of wheat for various reasons Australia has great potentialities but is greatly handicapped by distance, and it is only because of the special milling qualities of the Australian wheat that the latter can bear the expense of being transported to the other end of the world Argentine, like the United States, is becoming more important in the British market as an exporter of meat than of wheat Argentine and Russian wheats, in fact, mainly go to the Continental market, and are diverted to Great Britain only to make up a deficiency, so to say Argentine and Russia are no better than India either in the matter of the quality of their wheats or in that of the organisation of the trade The uncertainty about the volume of the export trade in Indian wheat, for reasons already mentioned, is a great obstacle in the way of the organisation of the trade on Canadian lines. As regards quality, the need for a stronger and more rust-resisting kind of wheat has long been felt in India As a result of experiments in proper selection and hybridisation conducted at the

Pusa Agricultural Research Institute, a new variety of wheat has been produced having the requisite milling and baking qualities. The new Pusa wheats also give twice the yield of the local wheats, are rust-resisting and have a strong straw. So the problem of improving the quality is on the way to a right solution. The yield, even of the local wheats, is 20 to 25 bushels per acre on irrigated and well-manured fields as against 12 to 14 bushels on dry land. Irrigation wheat is moist, the dry crop is preferred for export purposes. The former meets the needs of internal consumption, hence a growth in its volume would release more of the latter for export. The increase in the outturn of wheat, moreover, is a part-insurance against famines, and being a crop only suitable for rich soils, there is no question of its displacing other food-crops like barley or millets. The only crop in danger of being displaced by wheat is cotton, that depends upon the relative prices of the two. India, therefore, has something to gain and nothing to lose by improving the quality and yield of her wheat crop and so modifying the organisation of the trade as to benefit the farmer rather than the middleman. The troubles of the farmer in this as in other cases arise from his want of capital and his helpless position in the market. The remedy, too, is the same as in other cases, *viz*, co-operative credit, co-operative purchase of seeds, implements, manure, etc., and co-operative sale of produce.

After the United Kingdom, Belgium was a good customer for Indian wheat, taking about 10 per cent. of the exports. France was quite an uncertain customer, turning to India only in case of deficiency in her own harvest. The purchases of Italy and Germany were almost negligible.

TEA

The tea-plant is as indigenous to Assam as it is to China, but until sixty years ago the tea of commerce was mostly derived from the latter country. The East India Company had a monopoly of the trade till 1833. When that was lost,

the company paid serious attention to proposals, which had been made ever since 1788, of growing tea in India. Commissions were sent to China and it was intended to bring Chinese cultivators to grow Chinese seed in India. The indigenous Assam plant of a superior type was, however, soon re-discovered, though it took many years to eradicate the mischief done by the inferior Chinese seed introduced into India and by its crosses with the indigenous type. The Company's government started State plantations in Assam and elsewhere in 1836 and its declared policy was to hand over the plantations to private enterprise as soon as the fostering care of the State was no longer felt to be necessary. The Assam plantation was handed over to the Assam Company in 1840 and the others too were all sold out by 1865. Indian tea was put on the London market in 1841 and the exports were big enough to be separately recorded since 1861. With the exception of the panic of 1866, which was partly due to fraudulence on the estates and partly to bad financial dealings in Calcutta and in England, the history of the industry is one of uninterrupted and rapid progress. By 1887 India became equally important with China in the tea-market of the United Kingdom. In 1900 China had practically been beaten out of the British market, her share of the trade being barely 6 per cent against India's 54 per cent. This race against China was won by increase of the acreage under tea, by careful methods of cultivation calculated to increase the yield of leaf per acre and by improved methods of manufacture of the tea for the market *e.g.*, the substitution of machinery for hand-labour. All these things led to such an increase of supply that the problem after 1900 was rather to find a sufficiently wide market for the product. The Indian Tea Association, which tackled such problems of common interest to the tea-planters, paid special attention in the early years of the period under review to restricting supply, improving the quality of the article, encouraging the consolidation of smaller estates so as to

economize expenses of direction, and so on, and it was the initiative of that body which led the Government to impose a trifling duty on the export of tea (equal to 1-12th faithing per lb), the proceeds of which were applied by a representative committee to expanding the existing markets for Indian tea and finding new ones

The area under tea was 400,000 acres in 1900. It rose to 600,000 acres by 1914---a rise of 50 per cent. The estimated outturn was 181 million lbs in the former year and 307 million lbs in the latter. The outturn, therefore, increased by 66 per cent or more. The yearly growth is shown in the accompanying table of figures. Only a third of the area belonging to the tea-estates is so far actually under tea. Nine-tenths of the area under tea lies in Assam and Bengal. The remainder is shared between the Punjab, the United Provinces, Madras and the Native State of Travancore, the last alone claiming half of it. The quantity exported from India was 175 million pounds in 1899-00 and rose steadily year by year (with one or two exceptions) to 288 million pounds in 1913-14, a growth of over 64 per cent in volume in 15 years. A comparison of the figures of estimated outturn and actual exports per annum shows that tea is a crop grown in India almost entirely for purposes of export (*see table*). The consumption of tea within the country was estimated at from 5 to 7 million lbs per year at the beginning of the period and between 15 and 20 million lbs at the end of it. The growth in internal consumption was due both to the efforts of the Tea Association in pushing the sale of the article and to the growing scarcity of milk in India. But the home market at its best was insignificant in comparison to the foreign market. The value of the exports was a little over six million pounds sterling in 1900 and nearly ten million in 1914 (*see table and diagram*). The average export value per lb was 8 2d in the former year, it slowly decreased year by year and reached 6·4d in 1905, then it recovered and steadily rose till in 1914 it was once

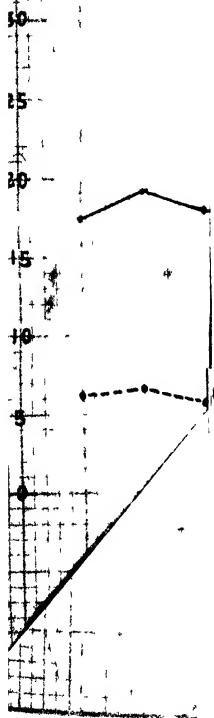
more 8·2d (*see* Table) Indian exports consist almost entirely of black tea, the quality of which is distinctly superior to that of the black tea exported by Ceylon or Java, and hence fetches a higher price than either of the latter. China and Japan hold the market in green tea. In the early years of the period when the price of black tea was going down, efforts were made in India to encourage the manufacture of green tea by means of subsidies on exports. They were never particularly successful, and when the price of black tea recovered, green tea exports steadily decreased and the subsidy was eventually abolished.

Of the total exports of tea from India, 70 per cent or more is shipped from Calcutta, some 20 per cent from Chittagong, and the remainder from various ports of the Madras Presidency. In the early years of the period, over 90 per cent of the total shipments of tea from India were made to the United Kingdom, about 5 per cent went to Australia, and direct shipments to all the other countries were summed up in the remaining 5 per cent or so. A certain proportion of the shipments to the United Kingdom were really meant for re-distribution thence. The tendency of making these latter shipments direct instead of *via* the United Kingdom steadily increased during the period, since 1907 the official statistics also were re-adjusted so as to reveal the final destination of exports as far as possible, thirdly, as already mentioned, special efforts were made after 1903 to push the sale of Indian tea in foreign markets. As a result of all these causes, the shipments to the United Kingdom towards the close of the period are found to be only about 70 per cent of the total instead of 90 % (*see* Table). Nevertheless, the most important market for Indian tea is the United Kingdom. The chief competitor in that market throughout the period was Ceylon. That country took to tea-planting after 1874 when the prospects for coffee began to look more and more gloomy, and being

the field it also profited by the Indian experience of the industry of the previous forty years. The progress made in the production and export of tea by Ceylon was, therefore, rapid so that in 1900 the United Kingdom drew 36 per cent of its imports of tea from Ceylon as against 54 per cent from India. In 1914 the respective proportions were 30 and 56 per cent. Between 1900 and 1914 another competitor had appeared, *viz.*, Java which in the latter year supplied 7 per cent of the tea consumed in the United Kingdom. The next important customer for Indian tea is Russia, the market whereof was sedulously cultivated by the trade, and with conspicuous success. The direct shipments to Russia were practically nil in 1900. In 1914 the exports of tea to Russia were valued at over a million pounds sterling, *i.e.*, about 11 per cent of the total exports of that article. That does not include tea-dust exported to China which is there made into brick-tea and then sold to Siberia. The Russian market is capable of much further development. Indian tea also made great progress in Canada during the period (*see table*). Canada is now a much more important market for Indian tea than Australia, though at the beginning of the period under review the latter country was the only important market outside the United Kingdom. Ceylon has a greater advantage over India in the Australian market. The United States do take some Indian tea *via* the United Kingdom, but they favour the green tea from China and Japan much more than the black tea from India.

In 1902 there was a paid-up capital of about £10 million invested in the Indian tea industry, 87 per cent of which was registered in London. In 1914 the figure had grown to over £17 million, the proportion registered in England still remaining the same as before. This is only the amount of capital of registered companies. There has always been a substantial but unknown capital invested by individual owners of tea-plantations. The industry is very largely in European hands,

1899-00 1900-1 1901-2



Exports of TEA and the Principal Customers, 1899-1914

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Output (mil lbs) | 181 | 197 | 191 | 188 | 209 | 221 | 221 | 241 | 244 | 247 | 258 | 263 | 268 | 297 | 307 |
| Quantity Exported (mil lbs) | 175 | 190 | 179 | 181 | 204 | 210 | 212 | 232 | 225 | 233 | 249 | 253 | 258 | 277 | 288 |
| Value of Exports (mil £) | 6 06 | 6 36 | 5 43 | 4 90 | 5 65 | 5 60 | 5 85 | 6 53 | 6 84 | 6 90 | 7 79 | 8 24 | 8 55 | 8 80 | 9 96 |
| Average Export Value (pence per lb) | 8 2 | 7 9 | 7 2 | 6 5 | 6 6 | 6 4 | 6 5 | 6 7 | 7 2 | 7 1 | 7 4 | 7 7 | 7 9 | 7 6 | 8 2 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| United Kingdom (mil £) | 5 52 | 5 76 | 4 92 | 4 18 | 4 68 | 4 44 | 4 55 | 5 03 | 5 04 | 5 20 | 5 87 | 5 88 | 6 30 | 6 29 | 7 23 |
| Russia | 00 | 01 | 03 | 10 | 11 | 21 | 27 | 36 | 45 | 55 | 76 | 98 | 86 | 99 | 1 10 |
| Canada | 04 | 05 | 02 | 14 | 23 | 36 | 44 | 43 | 16 | 24 | 31 | 29 | 37 | 39 | 42 |
| Australia | 19 | 23 | 19 | 14 | 15 | 14 | 17 | 20 | 28 | 20 | 22 | 26 | 28 | 26 | 31 |

in Assam almost entirely so. Its history is one of practically uninterrupted prosperity for over forty years. A careful study of the organisation and methods of work followed in the tea-industry would, therefore, seem to afford valuable suggestions for other industries in India, especially for those carried on by Indians.

COFFEE

The plantation of coffee on a commercial scale in India began about the same time as that of tea. The coffee industry made its home in the hills of South India, especially in Mysore, Coorg, the Wynaad and the Nilgiris. In the sixties Ceylon was more important than India as a producer of coffee, but a leaf blight appeared in that island in 1869, spread rapidly and within a decade or two almost completely destroyed the coffee-plantations. The planters escaped bankruptcy by transferring their energies to tea in good time. South India fared better than Ceylon and had a prosperous coffee industry in the early eighties. The decay of the South Indian coffee industry was caused by what happened at the other end of the world. The plateau of Sao Paulo and other parts of Brazil are very suitable, both by soil and climate, for the cultivation of coffee, and there extensive plantations were induced by the high prices obtaining in Europe between 1874 and 1884, and even a little later. The revolutions of 1889, 1891 and 1893 in Brazil gave a temporary relief to the coffee-producers in India, but since 1897 the abundant supplies of cheap coffee put on the market by Brazil have made that country the most dominant factor and caused the stagnation, if not decay, of the coffee industry of India.

Practically all the coffee produced in India is exported, the consumption within the country being insignificant. The table of figures on p. 107 shows that between 1899 and 1914 the annual exports of coffee varied greatly between 220,000 and 360,000 cwts. in quantity. The normal exports per annum may be said to be about 260,000 cwts. In value

too, there was a wide variation from year to year, the extremes being £660,000 and £1,170,000 (*see table*) Quantities and values did not by any means rise or fall together There is no local market in coffee and hence no Indian quotations of coffee-prices The declared export value is roughly the estimate of what is expected to be realised in London The average export value was 70s per cwt in 1899-00 as compared with 110 in 1874, it fell to 62-8d in 1903-04, recovered somewhat for a year or two and collapsed to 60 in 1906-07, rose slowly to 65 in 1910-11 and then very rapidly till in 1913-14 it reached 81-7d (*see table*) Indian coffee is superior in quality to Brazilian as may be judged from the fact that in 1913-14 the former was quoted in London at 79s and the latter (Good 'Santos') only at 51s per cwt, or, again, in 1911-12 when Indian was quoted in the same market at 73, Brazilian was at 62 The coffee market lends itself to a good deal of speculation The demand for the article is pretty constant Any big amount thrown on the market will not be absorbed by the consuming public simply because the price is lowered If, on the other hand, the price is raised too much, tea comes in as an effective substitute On the supply side, the dominating factor, as already stated, is Brazil, but the output of that country may be anywhere between 10 and 14 million bags (of 132 lbs each) Coffee, however, can be stored for two or three years without deterioration of quality The question is, particularly in Brazil, as to who is going to finance the surplus of an abundant crop That is how the financial and speculative interests get a hold on the coffee market Brazil supplies three-fourths of the world's production of coffee Two-thirds of the exports of that country consist of coffee The export-duty on coffee is a very important item of revenue for the government of Brazil All these things make it practically impossible for other countries to dispute the supremacy of Brazil in the coffee market In the matter of quantity, India's 200,000 or 300,000 bags have small chance

against Brazil's 10 to 14 million and Venezuela's million and more. Restriction of the Indian supply cannot affect price very much. Quality is the only thing which can keep India in the markets of Europe and America, and latterly there have been too many complaints about it from the London buyers. The coffee industry in India is as much in Indian as in European hands. It is not as well organised as the sister-industry of tea, probably because of the uncertain prospects described above. It is believed to be a dying industry but the export figures do not warrant such a pessimistic outlook.

From the table of figures the United Kingdom appears to have been the principal customer for Indian coffee during the major portion of the period under review. With the increase in direct shipments from India to the foreign consumers of Indian coffee, and with the re-adjustment of export figures so as to show countries of final destination the United Kingdom's share of the trade began to look smaller, *viz*, about 33 per cent towards the close of the period, as against over 60 per cent at its beginning. And even the smaller 33 per cent does not really belong to that country, most of the coffee imported into England is re-shipped to the United States or to the Continent. The consumption of coffee within the United Kingdom is very small. England and her Dominions are tea-drinkers. The greatest consumers of coffee are the United States, Germany, France, Holland and Belgium, in that order. France has all through the period been a good customer taking from 35 to 40 per cent of the total exports of Indian coffee, and there is no doubt she receives some *via* England. Germany is a minor purchaser so far as India is concerned. France buys the lower-grade and cherry-dried coffee. The United States buy largely from Brazil and a little from India, probably the superior grades.

Exports of COFFEE and the Principal Customers, 1899-1914.

| | 1899-1900. | 1900-01. | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14. |
|-------------------------------------|------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Quantity Exported (mill cwts.) | 28 | 24 | 25 | 26 | 29 | 32 | 36 | 22 | 24 | 30 | 23 | 27 | 24 | 26 | 25 |
| Value of Exports (mill £) | 99 | 81 | 83 | 88 | 91 | 1 10 | 1 17 | 66 | 74 | 92 | 73 | 88 | 89 | 1 04 | 1 0 |
| Average Export Value (shil per cwt) | 70 0 | 67 5 | 66 4 | 67 7 | 62 7 | 68 7 | 65 0 | 60 0 | 61 6 | 61 3 | 63 5 | 65 2 | 74 1 | 80 0 | 81 6 |
| <i>Principal Customers.</i> | | | | | | | | | | | | | | | |
| United Kingdom (mill £) | 63 | 49 | 42 | 56 | 55 | 70 | 64 | 27 | 41 | 45 | 37 | 29 | 30 | 34 | 36 |
| France | 26 | 22 | 29 | 20 | 27 | 27 | 37 | 25 | 20 | 36 | 22 | 38 | 28 | 41 | 36 |

CHAPTER V



MAIN ARTICLES OF EXPORT—(*Contd*)



III MANUFACTURED ARTICLES

CHAPTER V

MAIN ARTICLES OF EXPORT—(Contd.)

III MANUFACTURED ARTICLES

JUTE MANUFACTURES

The growth of manufacturing enterprise in Europe and the consequent increase in the volume of imports of food-stuffs and raw materials from abroad created the demand, in the latter half of the nineteenth century, for large quantities of some cheap packing and sacking material. That is why jute, as the cheapest and most easily manufactured of fibres, came rapidly to the forefront. Jute manufacture on modern lines was first successfully started in Dundee in 1832. For many years India merely supplied the raw material for the Dundee mills. It was Scottish enterprise which started the first jute mill in India at Serampore, Bengal, in 1854. In a decade or so the industry was firmly established on the banks of the Hooghly. The setting up of power-looms, of course, meant ruin to the hand-looms working jute in the villages of Bengal. Still as late as 1880-1 the exports of jute manufactures from India were divided in official statistics into (a) power loom, and (b) hand-loom. The decline of the latter craft since that date has been very much greater than in the case of cotton. The cultivation of raw jute, on the other hand, and its manufacture in mills into gunny cloth and gunny bags have increased very rapidly. 'Gunnies' and cloth are the two most important divisions of jute manufactures, so the subject will be best considered under those two heads separately.

GUNNY BAGS

Statistics are not available of the total output of 'gunnies' by the Indian jute mills which are, with the exception of

two in Madras, all centred in Calcutta—the headquarters of the Commercial Intelligence Department of India. There is a large internal market for gunny bags, and millions of them are exported along with their contents of grain and seeds every year. Omitting these and only taking the exports of gunny bags as such, one finds that in 1899-00 the quantity amounted to 168 million units, and that there was a fairly steady increase year by year till in 1913-14 the figure of 368 million was reached, (see the accompanying diagram and table of figures). The quantity exported, as also that utilized in India itself, varies from year to year according to the state of the harvests for the movement of which it is destined. While the number of bags exported to foreign countries from India was a little more than doubled during the fifteen years under review, the total value of the exports of bags was nearly quadrupled—from £2 3 million in 1899-00 to £8 3 million in 1913-14. The average export value rose from 3 3d per bag to 5 4d during the period (see table). The rise was by no means continuous. In 1901 and 1902 and again from 1908 to 1911 there was a depression in the trade, and the mills had to adopt short-time. A reference to the section on Raw Jute in Chapter III shows that as a general rule the rise or fall in the price of bags corresponded to a rise or fall in the price of raw jute, the latter article, however, increased much more in price during the period as a whole, viz., from 11 shil per cwt to 27 shil. The manufactured article, in other words, rose by 66 per cent whereas the raw material increased by nearly 150 per cent in price. The rise in price in both cases was rather too rapid in the last two years of the period. There is practically no competitor for India in the raw jute market, but bags can be made elsewhere either from the raw jute or the cloth exported. There is room for competition with respect to economy and efficiency of management in the case of the manufactured article and that has a restraining effect on the price of the latter.

Exports of GUNNY BAGS and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|---------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (No in mil.) | 168 | 202 | 230 | 225 | 206 | 201 | 233 | 257 | 293 | 300 | 364 | 360 | 289 | 311 | 46 |
| Value of Exports (mil £) | 2 34 | 2 95 | 3 15 | 3 09 | 3 04 | 3 17 | 4 05 | 4 89 | 5 65 | 5 17 | 5 73 | 5 70 | 5 05 | 6 44 | 8 35 |
| Average Export Value (pence per unit) | 3 3 | 3 4 | 3 2 | 3 2 | 3 5 | 3 7 | 4 1 | 4 5 | 4 6 | 4 0 | 3 7 | 3 8 | 4 1 | | 5 4 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| United Kingdom (mil £) | 45 | 47 | 41 | 45 | 42 | 36 | 42 | 63 | 72 | 64 | 52 | 49 | 45 | 55 | 61 |
| Egypt | 12 | 18 | 17 | 24 | 24 | 27 | 32 | 32 | 28 | 34 | 30 | 30 | 25 | 34 | 33 |
| Cape Colony Mauritius & Natal | 15 | 15 | 14 | 22 | 13 | 14 | 19 | 23 | 27 | 22 | 27 | 29 | 25 | 36 | 33 |
| United States | 12 | 12 | 21 | 12 | 07 | 10 | 10 | 32 | 53 | 36 | 46 | 41 | 57 | 59 | 1 00 |
| Cuba | 00 | 01 | 09 | 11 | 18 | 14 | 24 | 23 | 19 | 16 | 23 | 19 | 17 | 26 | 29 |
| Chile | 17 | 23 | 16 | 16 | 19 | 31 | 42 | 32 | 39 | 31 | 47 | 51 | 46 | 55 | 56 |
| China (including Hong-kong) | 08 | 13 | 27 | 28 | 25 | 29 | 40 | 29 | 13 | 29 | 44 | 17 | 27 | 48 | 32 |
| Indo China (French) | 00 | 09 | 00 | 00 | 02 | 08 | 10 | 12 | 27 | 22 | 18 | 24 | 12 | 15 | 36 |
| Siam | 00 | 00 | 01 | 01 | 02 | 04 | 08 | 06 | 11 | 18 | 15 | 24 | 06 | 13 | 30 |
| Straits Settlements | 27 | 42 | 31 | 46 | 24 | 29 | 34 | 44 | 41 | 29 | 22 | 21 | 16 | 19 | 23 |
| Australia | 48 | 59 | 64 | 36 | 57 | 49 | 80 | 90 | 96 | 88 | 1 05 | 1 25 | 90 | 92 | 1 65 |
| New Zealand | 16 | 18 | 15 | 11 | 14 | 12 | 14 | 15 | 16 | 17 | 23 | 18 | 19 | 25 | 24 |

The market for Indian gunny-bags is very wide. The best customer throughout the period was Australia, which took about 20 per cent of the annual exports. The attempts made by that country in latter years of importing gunny cloth and making bags for itself behind a tariff-wall have not so far checked its imports of bags. What affects these latter is mainly the condition of the wheat crop and the wool clip each year. Next to Australia, Chile was a steady customer during the period, her share of the trade being about 7 per cent. The bags are used for the export of nitrate from that country. So the element of seasonal uncertainty does not enter there. In spite of the heavy import duty on Indian gunny bags imposed by the United States, the share of that country increased during the period from 5 to 10 per cent, and the reduction of the duty in October 1913 sent the figures for 1913-14 of exports to that country further on the up grade.

In the early years of the period, the United Kingdom used to be the best customer after Australia, but she only acted as the distributing agent in this as in many other articles, so that her importance diminished in proportion as direct shipments to the consuming countries of North and South America increased. Nevertheless, in 1913-14, her share of the trade was only slightly smaller than that of Chile. Egypt acts as a distributing centre for the Levant, and the Straits Settlements for the Far East. Direct shipments have affected their shares in a similar way. There are numerous other customers of comparatively small magnitudes whose purchases year by year are set forth in the Table on the preceding page.

GUNNY CLOTH

As in the case of gunny bags, no statistics of the total output of the mills are available. There is a certain amount of internal demand for the cloth, *e g*, for packing cotton-bales, but compared with the demand for bags the demand for cloth within the country is very small. Gunny cloth is chiefly manufactured for export purposes. The accompanying diagram

and table of figures show in detail the yearly exports between 1899 and 1914. The quantity exported was 307 million yards in the former year and rose more or less rapidly to 1061 million yds in the latter. The only year in which there was a setback, instead of an increase, was 1911-12. That was very probably because of restriction of output owing to a continuous fall of prices during the three preceding years. The quantity exported was more than trebled during the period, the value of exports was more than quintupled—it was £1 8 million in 1899-00 and £10 3 million in 1913-14. At the beginning of the period cloth was a less important article of export than bags, at its end it was much more important (*see* the two tables). The average export value of gunny cloth was 1s 4d per yard in 1899, it kept steady at that level till 1905, rose to 1 9 for a couple of years, then steadily decreased till it touched 1 3 in 1910, it recovered in the following year, then jumped to 2 0 in 1912, and in 1913-14 it worked out at 2 3d per yard. Compared to gunny bags, gunny cloth kept steadier in price, though, broadly speaking, the movements up or down were parallel in the two cases. Cloth is not hampered by tariffs in foreign markets to the same extent as bags. The chief market for cloth is in the United States which never took less than two-thirds of the total exports from India of that article during the period under review. And that country always discriminated in her tariffs so as to encourage the import of cloth and discourage that of made bags. The chief market for bags outside India is Australia as already stated. But there, too, the tariff discriminates between cloth and bags in the same way as in the United States, though with very little effect. Next to the United States, Argentina was the best customer for Indian gunny cloth all through the period. Her share varied between 20 and 25 per cent according to the condition of her wheat, maize and seeds harvests from year to year. The United Kingdom served merely as a distributor to North and South America, as in the case of gunny bags, and direct shipments from India

Exports of GUNNY CLOTH and the Principal Customers, 1899 to 1914.

| | 1899-1900. | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-------------------------------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (mil yds) | 307 | 365 | 418 | 492 | 552 | 575 | 658 | 696 | 759 | 769 | 940 | 955 | 871 | 1021 | 1061 |
| Value of Exports (mil £) | 1 80 | 2 23 | 2 29 | 2 87 | 3 23 | 3 41 | 4 20 | 5 50 | 6 46 | 5 26 | 5 62 | 5 57 | 5 56 | 8 70 | 10 39 |
| Average Export Value (pence per yd) | 1 4 | 1 4 | 1 4 | 1 3 | 1 4 | 1 4 | 1 5 | 1 9 | 1 9 | 1 6 | 1 4 | 1 3 | 1 5 | 2 0 | 2 3 |
| <i>Principal Customers</i> | | | | | | | | | | | | | | | |
| United States (mil £) | 1 09 | 1 14 | 1 62 | 1 97 | 2 04 | 2 01 | 2 51 | 3 59 | 3 89 | 3 12 | 3 76 | 3 71 | 3 53 | 5 24 | 6 81 |
| Argentine Republic | 32 | 15 | 26 | 48 | 81 | 93 | 96 | 85 | 1 60 | 1 50 | 1 14 | 97 | 92 | 2 05 | 1 84 |
| United Kingdom | 18 | 45 | 31 | 11 | 09 | 13 | 28 | 54 | 34 | 19 | 24 | 28 | 36 | 40 | 55 |
| Canada | 00 | 01 | 00 | 02 | 00 | 00 | 02 | 03 | 10 | 03 | 11 | 17 | 22 | 45 | 37 |
| Australia | 03 | 07 | 06 | 06 | 07 | 10 | 10 | 12 | 18 | 15 | 13 | 17 | 17 | 22 | 31 |

to those countries have had the same effect as in the other case. In the last five years of the period Canada rapidly increased her demand for gunny cloth, though in 1913-14 her share of the trade was still very small.

Putting cloth and bags together, the exports of jute manufactures show the most remarkable development between 1899 and 1914. They were valued at £62 m. in the former year and at £18.8 million in the latter. Roughly half the outturn of raw jute was from year to year turned into cloth or bags either in the villages or in the mills of Bengal, and the share of the villages in the manufacturing activity was undoubtedly very small. There was no foreign competition to speak of in the internal market for bags or cloth, the growing requirements of which were amply met by the Calcutta mills. The rapid growth of exports was thus not made while neglecting the home market. The jute industry is very largely in European hands. Two-thirds of the capital of £8.6 million in 1913-14 was rupee capital. There was little increase in sterling capital since 1891-92. The effect of the Calcutta jute mills on Dundee has, broadly speaking, been thus that the latter place has specialised in the making of superior goods like carpets for which jute has been found suitable, leaving it to the Calcutta mills to turn out the inferior goods. The Indian Jute Association, started in 1884, looks after the interests of the industry, the history of which is a record of uninterrupted progress.

COTTON MANUFACTURES

At the beginning of the Christian era, if not earlier, India quite definitely was a cotton-growing and cotton-manufacturing country. Next to the production of food, cotton-spinning and weaving have all through the centuries been the most important and widely pursued of occupations. The professional handloom weaver, too, has been a traditional and an honoured member of the village community. Hand-spinning, practically extinct, is now being revived, hand-weaving persists in many parts of the country, though the weaver is the person who has

suffered most with the advent of the power-loom. The first cotton mill in India was started in 1818 near Calcutta, but there were no developments to speak of in that part of India as regards the cotton industry. That industry is now chiefly centred in Bombay, where the first mill was started in 1851. The extraordinary stimulus given to cotton production in India by the American Civil War served in its turn to encourage the growth of cotton-manufacturing in India when the European demand for Indian cotton ceased very largely with the cessation of the Civil War in 1865. The growth of the Bombay mills during the next ten years or so was such that in 1877 the House of Commons resolved to the effect that the five per cent import duty on cotton goods, which had been in force as part of the general tariff from before the times of the Mutiny, was protective in its nature and "ought to be repealed without delay, so soon as the financial condition will permit." Hence it was repealed in 1882 along with the others. In 1894 when a general import tariff had again to be resorted to for revenue, cotton-goods were at first omitted from the list of articles to be taxed, but later in the year they too were made subject to the five per cent import duty. In order to remove all protective elements from the tax, however, an excise duty of an equal amount was imposed upon all yarns produced in India above the 20s. In 1896 yarns were entirely freed from duty, either import or excise, and a uniform duty of $3\frac{1}{2}$ per cent was put upon all woven goods of cotton, whether imported from abroad or manufactured in Indian mills, the products of hand-loom alone being excepted. This was the tariff regulation which continued in force throughout the period 1899-1914 which is under review. It may here be noted that this excise duty of $3\frac{1}{2}$ per cent was a handicap on the exports of Indian machine-made cotton goods which competed in foreign markets with goods protected to that extent automatically, because no drawback of the excise duty was allowed on the goods exported. The exceptional zeal displayed by the Government of India,

avowedly in the interests of the masses, in removing the smallest elements of protection from a growing Indian industry appears curiously enough to have been confined only to cotton-manufacturing. The growing petroleum industry of Burma, for instance, was, ever since 1888, sheltered behind a tariff of one anna per gallon (equal to 16 per cent *ad valorem* at pre-war price) on all imports of that article. In addition to this, there was, since 1894, the general import duty of five per cent *ad valorem*. Like coarse cotton goods, petroleum, too, is consumed by the poor masses of the Indian people who took to it rapidly because it was cheaper than the indigenous vegetable oils. Whether the 21 per cent *ad valorem* import duty—the mild way of expressing which is to say ‘one anna per gallon plus 5 per cent *ad valorem*’—protected the indigenous industry may be seen from the following figures —

| | <i>Internal Production</i> | <i>Imports</i> |
|------|----------------------------|----------------|
| | Mil Gals | Mil Gals |
| 1893 | 11 | 50 |
| 1903 | 88 | 88 |
| 1913 | 278 | 68 |

The Tariff Act of 1910, it may be added, raised the duty on imported petroleum from one anna per gallon to one anna six pies, in addition, of course, to the general import duty of 5 per cent. The total rate thus works out at 30 per cent *ad valorem*, from 1910 to 1914.

Without any protection of this kind, cotton mills still flourished, especially in Bombay City and Ahmedabad. In coarse yarns and in grey (or unbleached) goods they steadily captured a larger and larger share in the home market, though the same cannot be said with regard to the export trade. The latter consists chiefly of coarse yarns, with a small proportion of grey and coloured goods. The proportion of white (or bleached) goods exported is insignificant. I shall deal with these main categories separately.

COTTON TWIST AND YARN

Spinning was the branch of cotton-manufacture to which machinery was first applied in India as in other industrial countries, and it was naturally the spinning of coarser yarns, of counts 1 to 20 or 25, with which the Indian spinning mills began. By 1899 foreign yarn of those low grades had practically been ousted from the Indian market, and the production of the Indian mills had grown to such an extent that nearly half of it had to be disposed of outside India. The yarn exported, though coarse, had always found a ready market in China, to which 95 per cent or more of the exports of yarn went, but at the beginning of the period under review, Japanese as well as Chinese mills were competing with the Indian mills in the yarn market of China. That is one reason why the quantity of yarn exported from India year by year showed practically no increase between 1899 and 1906 and a definite decrease between 1906 and 1913. The table of figures on p. 124 shows that 240 million lbs of yarn were exported in 1899-00, 243 million lbs in 1906-07 and only 197 million lbs in 1913-14. The total production of yarn of the Indian mills, however, showed increase fairly continuously from 514 million lbs in 1899 to 578 million lbs in 1904 and to 683 million lbs in 1913 (*see table*). The proportion of exports to total production was about 48 per cent at the beginning of the period, and about 28 per cent at the end. The consumption of yarn within the country, whether inside the mills or outside, rose from about 300 million lbs to about 500 million lbs during the fifteen years under review.

The total value of the exports of yarn was £4.6 million in 1899-00, it showed no steady tendency either towards a rise or fall, but fluctuated from year to year, rising as high as £8.2 million in 1905-06 and closing with £6.5 million in 1913-14. The accompanying diagram illustrates the comparative rise or fall of quantities and values from year to year. The table of figures shows how the average export value fluctuated during the period.

The general tendency was towards a definite rise, the average for the first three years being 5·1 pence per lb and that for the last three 7·8d. It must be remembered, however, that raw cotton, too, rose in value at the same time. The table gives the average export value of the raw material side by side for the sake of comparison. The average of the first three years in the case of raw cotton was 3·6 pence per lb, and that of the last three 5·6d. In fact, it was because spinning was found to be less remunerative than weaving that the Indian mills took more and more to the latter activity during the period.

The total number of spindles in position in India was 4·7 millions in 1899-00, it rose to 6·6 millions in 1913-14—an increase of 40 per cent. The total number of power-loom, was 39,000 odd in the former year and 99,000 odd in the latter—an increase of over 150 per cent. The greater attention paid to weaving also brought about an improvement in the quality of the yarn spun by the mills. The short-staple Indian cotton can only be used for yarns up to 20s or 25s when the spinning is done by machinery, though the hand-spinners of Dacca can produce even 450s from the same short-staple cotton. From long-staple cottons Lancashire spindles can produce yarn as fine as 600s. In 1902 only about 28 million lbs of yarn finer than the 25s was produced by Indian mills. That was less than 5 per cent. of their total outturn of yarn. Ten years later nearly 70 mil lbs were of counts above 25s. That was over 10 per cent. of the total production. The imported yarn was practically all of higher grades than the 25s. The necessity of having to import American or Egyptian cotton for turning out yarn of the higher grades had led the Bombay mill-owners to interest themselves in the movement originated by Lancashire of furthering the cultivation of long-staple cotton in India.

The chief market for the exports of Indian yarn was China throughout the period. Her share of the trade fell during the 15 years from 95 to 90 per cent. owing to the steadily growing competition of her own and Japanese mills. China is a silver standard country, so the fluctuations in the silver-exchange

are a special cause of disturbance in this particular trade. The whole export trade of India used to suffer from the uncertainties of exchange, as mentioned in Chapter I, until the gold-exchange standard was adopted in this country in 1898. The nature of the difficulties has once more been brought into prominent notice by the abnormal rise in the price of silver caused by the European War. However, Japan which competes with India in the Chinese market for yarn has to put up with the same uncertainties of the tael exchange. Japan, moreover, largely depends on India for her raw material and has, therefore, to incur the larger expense of transporting a bulky commodity to her own shores and conveying the yarn spun from it across the water to China, whereas the Bombay mills pay the freightage only on the yarn sent direct to China. Japan must, in consequence, show greater efficiency in order to be able successfully to compete with India in the Chinese market. Japan, however, has the advantage of free silver, whereas in India there has been an import duty of 5 per cent *ad valorem* on silver bullion ever since 1894 and, to make matters worse, that duty was raised to 4*d* an oz. in 1910 which meant an import duty of 16 per cent *ad valorem*, at the price of silver in those days. Again, the Japanese mills are sheltered by a tariff wall in their home market, they enjoy the benefit of national shipping companies subsidized by their Government, the wide spread of education in the country provides them with skilled, yet cheap, labour, in short, they feel that the whole resources of the State are behind them in their competitive struggle in foreign markets. The Indian mills feel very much like step-children in all these matters. They must grow by their own resourcefulness, unaided, if not actually hampered, by the State. And they have grown to some extent.

In addition to the Japanese competition in the Chinese market for yarn, which the Indian mills have to face, China herself is developing a powerful cotton industry in Shanghai with a view to produce all the yarn she needs for herself. That

is the position in the chief market outside India for Indian yarn, and the stationary or decreasing figures of the quantity of yarn exported to China from year to year, as shown in the table, show the trend of events. The fact that more yarn is consumed within India, whether by power-looms or hand-looms, is not a sufficient explanation of the stagnation or decay of the export trade. The sister industry of jute in Calcutta shows how a growing internal demand can be met while keeping up the increase in exports.

After China, there are a few minor markets which might be developed. The Straits Settlements is one of them. The table shows the stationary character of its share of the yarn export trade. Direct shipments to the final destination and the adjustment of official statistics so as to bring out final destinations of goods more fully, explain the smaller figures towards the close of the period under review, and those figures indicate the real extent of the existing Straits market for Indian yarn. The coast of the Persian Gulf, Aden (catering for the Red Sea coast and also for the Persian Gulf coast), the Levant and Black Sea coasts and the region around Constantinople—in short, the whole of the old Ottoman Empire is another minor market, but of great potentialities. The main competitor, especially in the Levant and Black Sea markets, was Italy all through the period. Italian mills import Indian cotton, pay the Suez Canal dues on that raw material, spin it into coarse yarns and successfully compete with the Bombay yarns exported to those regions. In fact, the Italians were getting a firmer and firmer hold on the Levant and Black Sea markets of Turkey in Asia and ousting the Indian yarn therefrom in the latter part of the period. Another minor market is Egypt where Indian yarn competes with English, the former having to pass through the Canal and pay the dues and the latter not having to bear that burden. Both in China and the Levant, a factor of growing importance in latter years has been the competition of the United States. The pressing problem before the Indian

Exports of COTTON TWIST AND YARN and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11. | 1911-12. | 1912-13. | 1913-14. |
|---|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|
| Total Outturn (mil lbs) . | 514 | 353 | 573 | 576 | 578 | 578 | 680 | 653 | 638 | 657 | 627 | 608 | 625 | 688 | 683 |
| Quantity Exported (mil lbs) | 240 | 118 | 272 | 248 | 252 | 247 | 297 | 243 | 215 | 235 | 227 | 183 | 151 | 203 | 197 |
| Value of Exports (mil £) | 4 60 | 2 78 | 6 21 | 5 69 | 5 89 | 6 54 | 8 25 | 6 93 | 5 98 | 6 45 | 6 47 | 5 74 | 5 06 | 6 61 | 6 55 |
| Average Export Value (pence per lb) | 4 6 | 5 5 | 5 4 | 5 4 | 5 5 | 6 3 | 6 6 | 6 8 | 6 6 | 6 5 | 6 7 | 7 4 | 8 0 | 7 7 | 7 9 |
| Average Export Value of Raw Cotton (pence per lb) | 3 2 | 4 1 | 3 6 | 3 5 | 4 3 | 4 4 | 4 1 | 4 2 | 4 3 | 4 1 | 5 0 | 6 0 | 5 7 | 5 6 | 5 7 |
| <i>Principal Customers (mil £)</i> | | | | | | | | | | | | | | | |
| China (including Hong-kong) | 4 38 | 2 53 | 5 89 | 5 30 | 5 46 | 5 98 | 7 78 | 6 32 | 4 44 | 5 68 | 5 64 | 4 91 | 4 27 | 5 88 | 5 84 |
| Straits Settlements | 09 | 11 | 13 | 16 | 12 | 21 | 20 | 18 | 20 | 16 | 16 | 11 | 17 | 17 | 19 |

spinners, therefore, must be, not only to increase the output of medium and finer yarns and to push the sale of those yarns, or preferably, of goods woven from those yarns

GREY (OR UNBLEACHED) PIECE-GOODS

I have already stated that the Indian mills began to pay special attention to weaving when the yarn market in China became dull and began to prove unremunerative. It was the Bombay mills which took a lead in this matter as they had previously done in the matter of spinning. Of 66 million spindles at work in the whole of India in 1913-14, Bombay claimed 45 million, or two-thirds. In weaving, Bombay's share was even greater. Of 99,000 odd power-loom positions in all India in the same year, Bombay had 73,000 odd, a proportion of three-fourths. The piece-goods made from the coarse yarn, hitherto mainly exported or sold to the hand-loom weavers at home, were meant chiefly for the home market where grey (unbleached) goods were always in great demand. The table of figures on p. 128 shows the estimated outturn of grey goods by Indian mills in each year between 1899 and 1914. The output was nearly trebled between the two dates, *viz.*, from 310 million yards, to 910 million yards. The growth was continuous from year to year, the only exception being the last year of the period which shows a decrease over 1912-13. Though increased quantities of grey goods were being produced by the mills, the annual exports of that article showed no tendency to increase except only occasionally as in 1905 or 1910 (*see table*). Normally they fluctuated a little on either side of 40 million yards. This means that at the beginning of the period some 9 per cent of the total production was exported, whereas at the end barely 5 per cent was devoted to that end. Thus all the increased production was absorbed by the home market. The total value of exports was £382,000 in 1899-00. It fluctuated from year to year like the quantity exported, but the general trend

was towards a rise. The average export value was two pence per yard in 1899-00, it kept at that level till 1904-05, but rose steadily during the remaining ten years of the period till it reached 2 6d per yard in 1912-13 (*see table*). For the sake of comparison, the figures of the average export value of raw cotton have been reproduced in the Table. A calculation of the margin between the values of grey goods and raw cotton, compared with the margin between the values of cotton twist and yarn and raw cotton, shows how weaving was found during the period to be more dependable, if not always more remunerative, than spinning, by the cotton mills.

The chief market for the grey piece-goods made by the Indian mills was, as already stated, the home market, throughout the period. The movement, started in 1904, of using indigenous goods in preference to those of foreign manufacture gave the cotton mills a stimulus just when they needed it because of their loss of hold on the Chinese yarn market, and that certainly was the main reason why more and more grey goods were turned out but the exports of the same remained practically stationary. In the supply of the home market with indigenous cloth, however, the power-looms were only one factor, the other factor of hand-looms was by no means unimportant. Of the 274 million lbs of Indian mill-spun yarn retained for home consumption in 1899-00, the power-looms only consumed 98 million lbs, the remaining 176 million lbs were probably mostly utilised by the hand-looms. The quantity of yarn of indigenous make, retained for home consumption, increased from year to year, as already mentioned in the section on 'Cotton Twist and Yarn,' but a larger share of what was retained came to be consumed by the power-looms during the period, so that in 1913-14 of the 486 million lbs thus retained the share of the power-looms was 274 m lbs and that of the hand-looms 212 million lbs at the most. In the weaving of Indian-spun yarn, therefore, the power-looms were much less important than the hand-looms at the beginning of the period, whereas at its end they were decidedly

more important Of the hand-loom it can only be said that they did not decay further than they had done before, but showed some slight progress The hand-loom is no danger to the power-loom, it is, rather, the other way about The chief competition in the Indian grey-goods market is offered by the imported article In 1899-00 the imports of grey piece-goods amounted to 1,264 million yards, excluding re-exports The figures of the succeeding years down to 1912-13 were more often smaller than larger than the one for 1899-00 In the last two years of the period, however, there was a big increase, the figure for 1913-14 being 1,530 million yards (excluding re-exports) So the trebling of the outturn of the indigenous power-loom filled the need of the expanded home-market, which otherwise would have been supplied by increased imports as in the case of white and coloured goods

There was no expansion in the export trade, as the table of figures shows The greater attention paid to the home market is not a satisfactory explanation The excise duty, as already pointed out, is a wanton hindrance, for the imposition of which there is no excuse whatever in the case of the exports The tiny stream of the exports of grey goods is spread over a very wide area which at the same time can be better commanded by the Bombay mills than by any of their foreign rivals This area includes Persia, Persian Gulf ports, Aden, the vast coast of East Africa and Mauritius None of these is a big market in itself at present, so far as the Bombay mills are concerned, but they have great potentialities, most of them During the period under review, British and Portuguese East Africa taken together afforded the best market for Indian grey piece-goods The former German East Africa was protected by the Germans as their own preserve, otherwise it would have been as good a market as either of the other two Foreign goods meant for these markets used in the early years of the period to be sent to Bombay, to be re-exported from there, but in the later years of the period Aden came to be the centre

Exports of GREY (UNBLEACHED) PIECE-GOODS and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14. |
|--|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Estimated Outturn (mil yds) | 310 | 310 | 375 | 380 | 420 | 480 | 510 | 530 | 600 | 610 | 700 | 760 | 850 | 910 | 870 |
| Quantity Exported (mil yds) | 46 | 32 | 36 | 38 | 42 | 52 | 55 | 42 | 39 | 43 | 52 | 56 | 39 | 44 | 43 |
| Value of Exports (000 £) | 382 | 272 | 319 | 321 | 358 | 475 | 525 | 408 | 398 | 424 | 513 | 564 | 420 | 488 | 473 |
| § Average Export Value (pence per yd) | 2 0 | 2 0 | 2 1 | 2 0 | 2 0 | 2 1 | 2 2 | 2 2 | 2 4 | 2 3 | 2 3 | 2 4 | 2 5 | 2 6 | 2 6 |
| Average Export Value of Raw Cotton (pence per lb.) | 3 2 | 4 1 | 4 6 | 3 5 | 4 3 | 4 4 | 4 1 | 4 2 | 4 3 | 4 1 | 5 0 | 6 0 | 5 7 | 5 6 | 5 7 |
| <i>Principal Customers (000 £)</i> | | | | | | | | | | | | | | | |
| East Africa, (British, German* and Portuguese) | 122 | 93 | 111 | 144 | 129 | 115 | 136 | 135 | 103 | 101 | 144 | 147 | 131 | 171 | 147 |
| Egypt | 8 | 8 | 4 | 11 | 8 | 10 | 15 | 20 | 13 | 21 | 18 | 20 | 19 | 11 | 20 |
| Mauritius | | | | | | 7 | 5 | 4 | 9 | 14 | 15 | 15 | 16 | 19 | 12 |
| Aden | 100 | 56 | 96 | 67 | 104 | 60 | 89 | 96 | 83 | 80 | 83 | 83 | 82 | 105 | 57 |
| Persia | 51 | 9 | 6 | 5 | 7 | 12 | 11 | 14 | 26 | 23 | 51 | 27 | 42 | 38 | 41 |
| Siam | | | 1 | 3 | 9 | 5 | 17 | 21 | 16 | 17 | 16 | 15 | 12 | 20 | 22 |
| Persian Gulf | 21 | 22 | 32 | 13 | 21 | 34 | 40 | 56 | 81 | 88 | 83 | 172 | 54 | 55 | 96 |

§ A little over four yards of cloth go to a pound in weight, roughly speaking

* Figures for German East Africa are about a third or fourth of those for either British or Portuguese, all through the period.

of that re-distribution instead of Bombay That is, at any rate, one explanation of why the re-exports of grey piece-goods from India (*i.e.* mostly from Bombay) declined steadily from 10 m yds in 1899-00 to 4 m yds in 1913-14 The exports of grey goods from Bombay to East Africa showed no definite tendency towards an increase during the period Next to East Africa, Aden was the best customer all through the fifteen years , but in that market, too, there was no evidence of greater absorption of Indian grey goods from year to year Aden has a small local market for these goods, but its chief work is as a distributing centre for ports in the Red Sea and also in the Persian Gulf Direct trade in grey goods with ports in the Persian Gulf, though small, showed a distinct tendency to increase , and so did the yet smaller trade with Egypt In Asiatic Turkey, on the other hand, Italy was ousting Bombay from the grey goods market as from the yarn market , but what is more surprising is the fact that both those articles were manufactured in Italy from Indian cotton so that they bore the burden of the extra freightage, as also of the Suez Canal dues China was altogether an insignificant market for Indian grey piece-goods , but it is noteworthy that the competition there came not only from Japan but also from the far-off United Kingdom. The Indian mills, no doubt, have an enormous scope in the home market for grey piece-goods, but it should be possible to expand the export-trade in that article to the above-mentioned markets, too, considering that foreign competition would probably be a little less keen in them than in India itself

COLOURED, PRINTED OR DYED PIECE-GOODS.

Besides 'grey' the other two important divisions of piece-goods are 'white' and 'coloured' The exports of white (bleached) piece-goods from India did not exceed half a million yards in the best of years between 1899 and 1914 , so I shall pass on to the consideration of coloured, printed or dyed (for short, referred to as 'coloured') piece goods of Indian make. Over two-thirds of these are of Madras manufacture , the rest

come from Bombay. The table of figures on p. 132 gives the estimated total outturn from year to year during the period under review. The 'production was more than trebled during the period, and the growth was continuous, only the last year, *viz*, 1913-14, recorded a decline in quantity produced. The annual exports are definitely known and are given in the Table. The figure for 1899-00, *viz* 22 mil yds, is abnormally low, then till 1909 the exports varied slightly around 34 mil yds, but between 1909 and 1914 an average of 42 m yds was reached, the figures for 1913-14 being the highest, *viz* 45 m. yds. Thus the general trend was towards an increase, at least in the latter years of the period. On an average, about 30 per cent of the total output was exported at the beginning of the period, but at the end the proportion had fallen to less than 15 per cent. That means that the tendency was towards retaining a larger and larger proportion of the output for home consumption, even when the quantity exported showed an increase from year to year. The total value of the exports of Indian coloured goods was greater, throughout the period, than that of the exports of grey goods, the excess ranging to as much as 90 per cent in the latter years. The total value was nearly a million pounds sterling in 1913-14. (See Table.) The average export value did not rise steadily from year to year, but the general tendency throughout the period was definitely towards a rise.

As compared to grey piece-goods, a much larger proportion of the Indian output of coloured piece-goods was exported every year during the period, and yet the chief market for that article was the home market, as in the other case. In 1899-00 Indian mills contributed some 80 million yards towards home consumption, whereas the imports (excluding re-exports) in that year were as much as 425 million yds. In 1913-14 the respective figures were 245 and 783 million yards. Thus internal consumption was more than doubled during the fifteen years, the quota of the Indian mills was trebled, but, even so, the increased demand was to a large extent met by

imported, instead of by indigenous goods. It is true that the imports of coloured, as of grey goods, were specially high in the last two years of the period, but in the case of coloured goods the imports had been steadily rising in quantity in earlier years too. It has been pointed out already that that was not the case with the imports of grey goods.

It is to be noted that the re-exports of coloured goods were all through the period greater than the total Indian exports of that article. Owing partly to direct shipment and partly to the use of Aden in place of Bombay for purposes of distribution, the re-exports decreased in later years, but the minimum thus reached in 1913-14, *viz.* 48 million yards, was slightly greater than the figure for 1899-00, *viz.* 46 million yards, which was typical of the earlier years of the period. Increased Indian exports, therefore, only came at their maximum to about the level of the re-exports.

The chief outside market for Indian coloured goods was the Straits Settlements throughout the period. Its share of the export trade in that article was pretty constant at 50 per cent. Direct shipments did not appreciably affect the trade—which means that the Straits did not mainly act as a distributing centre in the case of this article. That market is favourably situated, especially for Madras, the chief producing area, so there is no reason why the hold over it should be loosened. The only other important market for Indian coloured piece-goods is Ceylon. Trade with that island is really of the nature of internal, coasting trade. A reference to the Table shows that trade with Ceylon showed no clear signs of expansion for the major part of the period, and towards the close it was definitely declining, evidently because of foreign competition, for which the island, being on the highways of commerce, gives special facilities. Then there are minor markets like Persia, Siam, East Africa, Aden, Persian Gulf ports, etc., which could be expanded if their requirements were carefully studied.

Exports of COLOURED PIECE-GOODS and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|---|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Outturn (mil yds) | 100 | 100 | 125 | 130 | 150 | 170 | 170 | 170 | 200 | 210 | 240 | 250 | 280 | 310 | 290 |
| Quantity Exported, (mil yds) | 22 | 36 | 35 | 30 | 33 | 34 | 35 | 34 | 34 | 34 | 40 | 42 | 40 | 42 | 45 |
| Value of Exports (000 £) | 47 | 670 | 622 | 558 | 625 | 320 | 711 | 684 | 679 | 703 | 836 | 890 | 880 | 899 | 938 |
| Average Export Value (pence per yd) | 4 8 | 4 4 | 4 2 | 4 4 | 4 5 | 4 3 | 4 8 | 4 8 | 4 8 | 4 9 | 5 0 | 5 1 | 5 2 | 5 2 | 5 0 |
| <i>Principal Customers (000 £)</i> | | | | | | | | | | | | | | | |
| East Africa (British German Portuguese) | 7* | 9* | 4* | 11* | 18* | 28 | 34 | 24 | 14 | 17 | 24 | 31 | 34 | 42 | 45 |
| Egypt | 2 | 2 | 1 | 5 | 3 | 4 | 8 | 11 | 12 | 10 | 10 | 13 | 11 | 11 | 12 |
| Mauritius | 1 | 2 | 1 | 2 | 6 | 4 | 4 | 3 | 4 | 6 | 7 | 13 | 7 | 8 | 5 |
| Aden | 22 | 31 | 44 | 34 | 40 | 30 | 31 | 41 | 44 | 26 | 27 | 37 | 47 | 35 | 28 |
| Ceylon | 155 | 169 | 153 | 181 | 174 | 201 | 234 | 194 | 188 | 222 | 255 | 256 | 221 | 188 | 154 |
| Persia | 7 | 9 | 6 | 5 | 4 | 4 | 6 | 7 | 8 | 36 | 66 | 48 | 38 | 31 | 55 |
| Siam | 6 | 3 | 3 | 5 | 5 | 10 | 11 | 13 | 9 | 10 | 19 | 36 | 43 | 44 | 57 |
| Straits Settlements | 202 | 331 | 262 | 229 | 275 | 230 | 263 | 262 | 271 | 261 | 301 | 331 | 346 | 412 | 467 |
| Persian Gulf | 3 | 5 | 10 | 6 | 10 | 9 | 12 | 17 | 24 | 30 | 35 | 36 | 30 | 30 | 29 |

* Only British and Portuguese, no German

From the foregoing remarks it is clear that in the matter of piece-goods as a whole, the export trade is comparatively unimportant, there is a vast internal market capable of great expansion when seasons are favourable. Nevertheless the export-trade deserves to be carefully cultivated because extreme dependence upon one market, and that not exactly reliable owing to the vagaries of the seasons, is an unwise policy to pursue, as has already been amply proved by the Chinese market for Indian yarn. It need scarcely be added that both in the internal and the external markets the competition is very keen and with one of the most highly organized industrial nations of the world, *viz* England.

LEATHER

The art of making leather and manufactures of leather seems to have been known in India from very early times. Records are still extant which were discovered in Kashmir and ascertained by experts to be the writings on leather belonging to the 3rd century A D. Pictures of the trappings of horses and the boots of riders of those days look quite modern. Both the Hindus and Buddhists, though objecting to taking life, appear not to have had any objection to the use of excellently prepared leather as wraps even for their sacred books. From those early times down to date, the tanning of hides and skins for local use by the village and town shoe-makers has continued to be an extensive industry throughout India. But those traditional methods of tanning can hold their own no longer. More expeditious and efficient processes have been discovered and applied on a large scale in Europe and America so that those countries now want raw hides and skins from India and not tanned hides or skins. That is why the exports of the latter were stagnant in quantity, if not declining, between 1899 and 1914. I shall deal with the two divisions of the group separately.

TANNED OR DRESSED HIDES

Though tanning, as already stated, is done all over India, in the matter of the export-trade only the provinces of Madras

and Bombay need be considered. And even between these two, Madras is by far the more important province, as it contributes over 80 per cent of the exports of tanned hides. Most of the remainder comes from Bombay. The specially large proportion of outcastes in the population of Madras is the probable explanation of the predominance of the tanning industry there. Hides and skins are brought to Madras for tanning from distant parts like Calcutta, Dacca, Agra and Cawnpore. Vegetable tanning materials are abundantly found, and of excellent quality, in Madras as in Bombay. The hides tanned are mostly cow-hides, buffalo hides form a very small proportion, not more than ten per cent. Most of the Madras tanneries are small establishments not employing more than 25 persons each. The leather works at Cawnpore and Bombay are large-scale concerns of a modern type, but they are the exceptions, not the rule, in India so far.

The table of figures on p. 136 shows that the quantity of tanned hides exported from India annually between 1899 and 1914 did not show any definite tendency towards increase, though it did not seem definitely to decrease either. The quantity fluctuated roughly between 100,000 and 200,000 cwts. The total value of the exports of tanned hides, on the other hand, did show a definite upward trend, though not necessarily continuous from year to year. The maximum reached was £1.3 million in 1912-13. The average export value steadily increased during the period from £4 per cwt to £6. The fluctuations in average value are less reliable in the case of hides, because the group is not homogeneous, and the quantities of its components vary arbitrarily from year to year. Still a very rough general idea can be formed from the figures for fifteen consecutive years. For purposes of comparison the figures for the average value of raw hides in the respective years have been reproduced in the present table from an earlier one. They show how the price of raw hides also steadily went up and up during the period. The

margin between the values of raw and tanned hides was distinctly higher after 1905 than before, showing the world's increased demand for leather in later years

The United Kingdom purchased almost all the exports of Indian tanned hides throughout the period. The market for raw hides, as already stated in the appropriate section, lay principally in Germany, Austria and the United States. Those countries arranged their tariff so as to keep out the tanned article and allow the raw material to come in. It was stated, too, that the tanning done in India was only partial, and that it had to be re-done in the importing country. It was that was the reason for non-importation, the import-duty was unnecessary, the trade itself would have adjusted matters. All this, however, does not disprove the partial truth in the allegation about imperfect tanning, because in the internal market itself the leather prepared in the Cawnpore and Bombay tanneries is preferred to the cruder article turned out by old methods, in spite of the much greater price of the former. Since 1912, moreover, the imports into India of tanned hides and skins became big enough to be separately recorded in official statistics. Boots and shoes and other manufactures of leather had, of course, been imported all through the period in increasing quantities. In this as in many other indigenous arts and crafts the problem in India is one of transition from the domestic to the factory system, which can hardly be expected to be accomplished by the ignorant workers in the traditional crafts themselves with their insignificant means. The market for manufactured articles need hardly be sought outside the country. The internal market is so vast and capable of such infinite expansion. During the War both tanning and manufacturing of leather and articles of leather in India received an unprecedented stimulus, and the Government took an initiative in the industry as it had never done before. As a result of that experience, it is to be hoped that the exports of raw hides and skins will in coming years become smaller and

Exports of TANNED HIDES and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|--|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (mil cwts) | 14 | 25 | 13 | 10 | 10 | 12 | 20 | 21 | 13 | 17 | 17 | 15 | 17 | 23 | 17 |
| Value of Exports, (mil £) | 56 | 97 | 51 | 41 | 40 | 55 | 1 03 | 1 15 | 70 | 93 | 96 | 84 | 98 | 1 36 | 1 05 |
| Average Export Value (£ per cwt) | 4 0 | 3 9 | 3 9 | 4 1 | 4 0 | 4 5 | 5 1 | 5 4 | 5 3 | 5 4 | 5 6 | 5 6 | 5 7 | 5 9 | 6 1 |
| Average Export Value of Raw Hides (£ per cwt) | 2 7 | 2 7 | 2 8 | 3 0 | 3 1 | 3 5 | 3 7 | 3 9 | 4 2 | 4 1 | 4 1 | 4 2 | 4 2 | 4 4 | 4 9 |
| Principal Customers, (mil £) | | | | | | | | | | | | | | | |
| United Kingdom | 55 | 94 | 49 | 40 | 38 | 50 | 96 | 1 06 | 67 | 90 | 91 | 82 | 96 | 1 34 | 1 03 |

smaller and be replaced by those of leather and manufactures of leather.

DRESSED OR, TANNED SKINS

- In the tanning of skins as in that of hides the province of Madras predominates. Over 80 per cent of the exports of tanned skins are derived from Madras. Bombay claims about 15 per cent of the trade. The skins tanned are mainly goat-skins, sheep-skins form a smaller proportion. In 1913-4 for instance, 74,000 cwts of tanned goat-skins were exported from India, while the exports of tanned sheep-skins amounted to 49,600 cwts.

The table of figures on p 139 shows that the quantity of tanned skins exported annually from India showed a slow but definite tendency towards decrease during the period under review. The figures of total value of the exports, on the other hand, kept steady, or, at any rate, did not decrease to the same extent. That was because the average export value, as shown by the figures in the Table, increased fairly steadily from year to year throughout the period, with only one or two exceptions. As in the case of hides, the figures of average value are not very reliable, owing to the heterogeneity of the group, and yet they may be taken to show the general tendency pretty clearly. A comparison with the figures of average value of raw skins in the respective years—reproduced from an earlier table—shows that the margin between the values of raw and tanned skins increased nearly 250 per cent between 1900 and 1914, because the value of raw skins went on declining while that of tanned skins was on an upward grade, especially after 1905. The demand in the European market for glaze kid and for fancy articles of leather was responsible for the rise in the price of tanned skins in the later years of the period. That is also probably why the United States made special efforts to get the raw skins from Bengal rather than the tanned skins from Madras, so that she might make the glaze kid herself by improved processes of chrome-tanning and dispose of it remuneratively in the European market.

The United Kingdom took more than three-fourths of the annual exports of tanned skins from India throughout the period under review. The share of the United States did not fall below 10 per cent. in spite of the import duty levied on that article in that country. It has already been pointed out that in raw skins the United States was the principal purchaser and the United Kingdom and France the other, minor ones. More efficient methods of tanning ought to be able to replace the export of raw by that of tanned skins and retain the remunerative margin of price for India herself.

Exports of TANNED SKINS and the Principal Customers, 1899-1914

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|---|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (mil cwts) | 18 | 21 | 13 | 14 | 16 | 13 | 13 | 15 | 15 | 14 | 13 | 14 | 15 | 13 | 13 |
| Value of Exports, (mil £) | 1 41 | 2 01 | 1 25 | 1 51 | 1 65 | 1 35 | 1 40 | 1 81 | 1 89 | 1 82 | 1 68 | 1 87 | 2 00 | 1 70 | 1 75 |
| Average Export Value (£ per cwt) | 10 0 | 9 6 | 9 6 | 10 7 | 10 3 | 10 3 | 10 7 | 12 0 | 12 6 | 13 0 | 12 9 | 13 3 | 13 3 | 13 0 | 13 4 |
| Average Export Value of Raw Skins (£ per cwt) | 5 9 | 6 3 | 6 6 | 6 9 | 6 8 | 6 2 | 6 1 | 6 4 | 5 9 | 5 0 | 4 9 | 4 4 | 4 3 | 4 4 | 4 7 |
| Principal Customers (mil £) | | | | | | | | | | | | | | | |
| United Kingdom | 1 36 | 1 59 | 1 06 | 1 28 | 1 42 | | 1 13 | 1 45 | 94 | 1 43 | 1 29 | 1 50 | 1 62 | 1 30 | 1 39 |
| United States | 36 | 33 | 16 | 17 | 16 | | 17 | 25 | 22 | 25 | 19 | 16 | 18 | 20 | 19 |

CHAPTER VI



MAIN ARTICLES OF EXPORT,—(*contd*)



IV MISCELLANEOUS

CHAPTER VI

MAIN ARTICLES OF EXPORT,—(*Contd*)

IV MISCELLANEOUS

OPIUM

Opium is a drug prepared from the milky juice exuding from the scratched capsules of the poppy plant. The principal areas in India cultivating that plant are firstly, the Patna and Benares Agencies, and secondly, certain Native States in Central India and Rajputana, chiefly Indore, Gwalior, Bhopal and Mewar. The produce of the first region is known as Bengal opium and that of the second as Malwa opium. Since 1911 Bengal opium has been wholly derived from the Benares agency as the Patna agency was closed in that year.

Bengal opium is entirely under State control as regards cultivation and manufacture. It is a State monopoly inherited by the British from the early Muhammadan rulers. The state deals directly with the cultivators, fixes the area to be put under poppy, makes cash advances without interest at the time of sowing, purchases the whole produce of crude opium at a fixed rate, manufactures the crude into the finished article in its own factory at Ghazipur and sells a fixed number of chests to traders by monthly auctions in Calcutta. The quantity that can be exported is announced in advance. The State makes, or until recently used to make, a handsome revenue out of the whole transaction. Exports of Bengal opium all take place from Calcutta.

Malwa opium is all produced within Native States, so the British Government has nothing to do with its cultivation or manufacture. When the opium passes into British territory, a duty of £80 per chest of 140 lbs is levied upon it. Until 1912 the duty was £40 per chest. Exports take place from

Bombay The quantity that can be exported is announced by the Government twelve months in advance Like Bengal opium, Malwa opium, too, is a source of revenue to the State, but on a much smaller scale, the exports of the former being three or four times those of the latter in quantity

The opium produced in India is (or was until recently) destined very largely for export The internal consumption, outside the Native States, never exceeded the maximum of 5,000 chests (of 123 lbs each) per annum, while the minimum was 2,000 chests The exports, on the other hand, used to be over 60,000 chests, (of 140 lbs each) till 1909, since when they rapidly decreased till they reached the low figure of 12,000 chests in 1913-4 The table of figures on p. 146 shows the total annual exports of opium from India between 1900 and 1914 The quantity exported kept fairly steady in the first ten years of the period, but diminished pretty rapidly in the last five years because of the swift contraction of the Chinese market where Indian opium used mainly to be sold China always produced the major portion of the opium she consumed, but what foreign supplies she took used mostly to be drawn from India In 1906 the Chinese Government declared its policy of progressive curtailment of the opium trade, internal as well as foreign, with a view to its complete abolition before the end of ten years The Government of India acceded to the request of the Chinese Government for co-operation with them in this matter, and promised to export progressively smaller quantities of Indian opium to China, so as to stop all exports at the end of ten years and even earlier if China so wished As a matter of fact, the monthly sales by auction in Calcutta for purposes of export to China were stopped by the Government in January 1913 and the trade with China was no more to be resumed Exports to other markets, however, continued as before, and sales by auction for this purpose also continued Both Bengal and Malwa opium used to be exported to China, but Bengal opium

was always preferred in that market to the other, because the latter varied greatly from year to year as regards consistency, strength, weight, etc. Seasonal fluctuations of the crop occurred in both regions, but the Government used to keep a stock of Bengal opium in Calcutta so as to put pretty even quantities on sale by auction from year to year. Whatever its defects, Malwa opium did find a market in China, but that was practically its only market outside India, so that with the closing of the Chinese market the export trade in Malwa opium came to an end.

The table shows that the total value of the exports of Indian opium was between five and six million pounds sterling per annum till 1909, and that for four years afterwards the total value was higher instead of lower, in spite of the diminution in the quantity exported. It was only in 1913-4 that the total value collapsed to two and a quarter million pounds sterling. In other words, the average export value, which had always shown wide fluctuations (see Table), rose to unprecedented heights in the last four years of the period under review. It may be noted that the fluctuations in the tael exchange did not appreciably affect the opium trade as those fluctuations were trivial, compared with the heavy export-duties and monopolistic prices which the trade constantly bore.

China always took three-fourths or more of the opium exported from India, so that the loss of that market hit the opium trade very hard at the close of the period. After China, the only other important market was the Straits Settlements. A large proportion of the trade of the Straits, however, was a re-distributing trade. The Table shows how the exports to the Straits collapsed along with those to China. (See the figures for the last two years, particularly). Though the Straits evidently re-shipped Indian opium largely to China, there were also re-shipments to other countries like Cochin-China, Siam, Java and Sumatra. There was also local consumption in the Malay Peninsula, especially by the Chinese settlers

Exports of OPIUM and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-98 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14. |
|-------------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Quantity Exported (mul £) | 93 | 96 | 92 | 94 | 102 | 93 | 89 | 94 | 89 | 93 | 79 | 63 | 52 | 43 | 16 |
| Value of Exports, (mul £) | 5 46 | 6 30 | 5 68 | 5 34 | 6 98 | 7 08 | 6 31 | 6 20 | 5 76 | 6 23 | 6 20 | 8 50 | 8 72 | 7 48 | 2 28 |
| Average Export Value (£ per cwt) | 58 7 | 65 6 | 61 7 | 56 8 | 68 4 | 76 1 | 70 9 | 66 0 | 64 9 | 57 0 | 78 4 | 134 9 | 167 7 | 173 9 | 142 5 |
| <i>Principal Customers, (mul £)</i> | | | | | | | | | | | | | | | |
| China (including Hong-kong) | 4 02 | 4 48 | 4 08 | 4 01 | 5 18 | 5 53 | 4 90 | 4 80 | 4 35 | 4 92 | 4 60 | 6 16 | 6 62 | 5 64 | 1 10 |
| Straits Settlements | 1 25 | 1 52 | 1 30 | 1 11 | 1 36 | 1 26 | 1 16 | 1 15 | 1 16 | 1 03 | 1 23 | 1 69 | 1 09 | 70 | 22 |
| Java .. | 02 | 05 | 08 | 05 | 06 | 07 | 07 | 08 | 11 | 08 | 13 | 38 | 36 | 38 | 47 |

and immigrants It was this latter portion of the trade which was left after the main, Chinese, portion of it disappeared. The direct purchases of Java were insignificant except towards the close of the period (See Table) There were indirect purchases *via* the Straits, but, even so, it appears highly probable that after the loss of the Chinese market, the activities of the export merchants were directed towards the other customers and especially towards Java That is what the figures for the last four years of the period seem to indicate. Opium is not an article the exports of which, evidently used for non-medicinal purposes, deserve to be fostered. Indian opinion on the subject was unmistakably shown in the right direction when an assent to the agreement to cut down exports to China meant a substantial loss to the Indian exchequer The Government, therefore, will be backed by public opinion whole-heartedly if it stops all exports of opium from India to any country whatsoever, except for strictly medicinal purposes, if, in other words, the Government of India does, in the matter of opium, what it wanted the Continental governments to do, before the War, in the matter of the exports of cocaine, morphia, etc., from their respective countries to India The exports of Malwa opium having automatically ceased, and the Government of India being the sole controller of Bengal opium, the matter is entirely within its choice

INDIGO

Indigo was an important article of export from India since the very early days of the East India Company Indigo-dyed goods, too, used in those days to be sent to other countries Mandelso tells us in his *Travels* (1638) that the best indigo in the world came from a place near Ahmedabad, Gujerat Agra and Fatehpur were other noted centres of the indigo industry in those days The national states of Europe stopped the imports of Indian indigo in the 17th century in order to protect their indigenous woad industry, and that part of the Indian export trade consequently languished. The modern

indigo industry began in Bengal in the last two decades of the eighteenth century when the Company brought European planters from the West Indies to undertake indigo cultivation in that province. Between 1780 and 1802 the Company's Government directly supported the indigo industry and put India once more into the foremost rank of the indigo-producing countries of the world. The centre of the industry soon shifted, for various reasons, from Lower Bengal to Bihar which continued throughout the 19th century to produce the finest varieties of Indian indigo. Next in importance to Bihar as a producing region was Madras, then came the United Provinces and the Punjab, on a much lower scale. The industry in Bihar was almost entirely under European ownership and control and was conducted on large-scale methods. Elsewhere it was mostly in Indian hands and the individual concerns were small. The indigo industry as a whole enjoyed nearly a century of remarkable prosperity until towards the close of the 19th century when the commercial application of the chemical researches of German laboratories began adversely to affect its fortunes. The aniline and alizarine dyes manufactured, in Germany had already pushed back Indian vegetable dyes like madder, safflower and lac, and the lower grades of indigo, too, were not left unaffected by them. But it was the putting of synthetic indigo on the market in commercial quantities at a low price by German manufacturers that dealt a serious blow to the trade even in the finer qualities of Indian indigo. That was in 1897, and the history of the industry between that year and 1914 is one of rapid collapse. The Bihar planters took immediate steps to remedy the situation, made corporate efforts through their Association, employed experts to select indigo plants giving the highest yield of indigotine and other experts to devise improvements in the processes of manufacture. They sought aid from Government, financial and otherwise, and got it, but in spite of all their efforts at lowering the price of natural indigo by more efficient production, the synthetic product

undersold the vegetable dye, so that there was no alternative to the reduction of area and outturn year by year and the substitution of other more remunerative crops like sugar or cotton. The indigo crop is very susceptible to a bad season, but in years before the competition of the artificial product a low crop used to lead to a higher price, India being the main source of supply, so that the area and outturn of the following year were not necessarily cut down. The advent of the synthetic indigo changed all that. The table of figures on p. 151 shows how rapidly the annual outturn (officially estimated) fell between 1900 and 1914 from over 110,000 cwts to less than one-fourth of that figure. The quantity exported from India fell still more rapidly—from 111,000 cwts in the former year to merely 10,000 in the latter. It is true that the decline was not necessarily continuous from year to year, but the tendency is writ large over the whole period. The figures of total value, given in the Table, show the same thing. Indigo was an important article of the Indian export trade even in 1899-00 though the total value had already fallen in that year to £1.7 m from the maximum of £3.5 m reached in 1895-6. In 1913-4 Indigo had become an insignificant article of the export trade, being valued only at £141,000. The average export value per cwt had been £18 14s in 1895-96, it fell to £16 2s by 1899-00, the decline continued till 1904-05 when the lowest point was reached, *viz* £11 6s. After that year there was some recovery and the export value fluctuated about £13 till in the last year of the period under review it jumped up once more to £14 2s, a little above the level of 1900. What happened was that after the export value fell to a particular level, further reduction took place entirely on the side of the quantity disposed of. There was always a field in the textile world where synthetic indigo was rejected in favour of natural indigo in spite of price-considerations, but that field was getting narrower and narrower throughout the period. The European War, of course, gave a tremendous stimulus to the Indian indigo industry, because

Germany could no longer export dyes or anything else, and artificial barriers in the form of heavy import duties may bolster up the industry even now, though the War is over. But that cannot, by any means, be regarded as a stable position. If after all efforts at economies in production, the vegetable dye cannot hold its own against the synthetic product, well, then, the former had better be confined to those grades where the superiority of its merits over those of the latter is indisputable. The history of the indigo industry in India before the War gives little ground, indeed, for optimism.

The foreign market for Indian indigo used to be fairly wide in the early years of the period. The best customer was the *United Kingdom*, which took 20 per cent or more of the total annual exports of that article, and that share increased instead of declining with the diminished total exports of indigo. Towards the close of the period the proportion of Britain in the trade was over 30 per cent. Next to the United Kingdom, *Egypt* was the best customer for Indian indigo, at least until 1911. No doubt a good proportion of the indigo taken by Egypt was re-shipped to the Levant, Black Sea and North Mediterranean ports, but the local consumption was evidently substantial for the Table shows no conspicuous break in the figures after 1907 when the final destination of exports began to be more correctly reflected in the official statistics. The collapse of the Egyptian purchase of the much-reduced total exports of indigo from India during the last three years of the period under review was undoubtedly due to the supersession of the natural by the artificial product in that market. The share of the *United States* was 10 per cent or a little more until 1905 after which date it fell to 5 per cent or so till 1909. Then, there was some recovery towards the earlier proportions, but the last year of the period showed that the recovery was only temporary in character. The share of *Austria-Hungary* rose from 7 to 15 per cent. of the total during the period, and that

Export of INDIGO and the Principal Customers, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|--|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Outturn, (000 cwts.) | 111 | 148 | 112 | 79 | 102 | 58 | 48 | 65 | 52 | 38 | 39 | 46 | 47 | 39 | 26 |
| Quantity Exported (000 cwts.) | 111 | 102 | 89 | 65 | 60 | 49 | 31 | 35 | 32 | 24 | 18 | 16 | 19 | 11 | 10 |
| Value of Exports, (000 £) | 1,795 | 1,423 | 1,234 | 803 | 717 | 556 | 390 | 466 | 424 | 326 | 234 | 223 | 250 | 146 | 141 |
| Average Export Value, (£ per cwt.) | 16 1 | 14 0 | 14 0 | 12 3 | 11 9 | 11 3 | 12 5 | 13 3 | 13 2 | 13 3 | 13 0 | 13 9 | 13 1 | 13 2 | 14 1 |
| <i>Principal Customers, (000 £)</i> | | | | | | | | | | | | | | | |
| United Kingdom | 372 | 269 | 369 | 147 | 131 | 126 | 100 | 110 | 126 | 134 | 33 | 42 | 82 | 15 | 42 |
| Austria Hungary | 136 | 110 | 98 | 41 | 53 | 57 | 33 | 56 | 52 | 24 | 20 | 26 | 42 | 29 | 21 |
| France | 203 | 116 | 79 | 26 | 24 | 37 | 14 | 8 | 15 | 10 | 4 | 7 | 7 | 8 | 1 |
| Germany | 104 | 84 | 66 | 24 | 21 | 19 | 5 | 7 | 9 | 3 | | | | | |
| Russia | 30 | 33 | 42 | 5 | 11 | 20 | 14 | 15 | 14 | 11 | 8 | 17 | 11 | 6 | 4 |
| Egypt | 193 | 220 | 183 | 197 | 170 | 121 | 117 | 114 | 78 | 40 | 24 | 44 | 17 | 20 | 14 |
| United States | 208 | 228 | 122 | 89 | 96 | 50 | 20 | 18 | 19 | 19 | 13 | 18 | 22 | 13 | 7 |
| Persia | 36 | 75 | 42 | 32 | 45 | 46 | 19 | 28 | 39 | 13 | 31 | 15 | 10 | 3 | 5 |
| Turkey Asiatic (i.e. Levant, Black Sea and Persian Gulf) | 43 | 45 | 55 | 50 | 65 | 43 | 42 | 48 | 44 | 49 | 68 | 40 | 39 | 34 | 36 |
| Japan | 351 | 113 | 82 | 121 | 52 | 1 | 3 | 19 | 4 | 9 | 13 | 0 | 4 | 5 | 2 |

of *Asiatic Turkey* from less than 3 to nearly 25 per cent *France's* share rapidly fell from 11 per cent to 6 per cent between 1900 and 1905, and after 1905 it was altogether insignificant *Japan's* purchases of India indigo were second only to Great Britain's in the first year of the period, being about 20 per cent of the total But the very next year the proportion fell to 7 per cent, and after 1904 Japan hardly counted as a purchaser *Germany's* share was not more than 6 per cent to begin with, and it it soon fell to zero *Persia* always was only a minor customer and *Russia* was on a lower grade still

The above survey of the once wide market for Indian indigo shows that except in Asiatic Turkey the article everywhere yielded ground to the synthetic product, and the market in Asiatic Turkey is so far only a meagre one The market within India itself does not appear to be very promising, in view of the fact that in 1913-14, whereas the exports of vegetable indigo from India were 10,000 cwts worth £141,000, the imports of synthetic indigo into India amounted to 6,000 cwts worth £62,000 If the official estimate of the outturn of Indian indigo in that year is assumed to be accurate, there were 16,000 cwts of vegetable indigo retained for home consumption It may be noted that only the lower grades of indigo are utilised in India itself and it is those grades with which synthetic indigo can easily compete The fact that small Indian concerns, run by cheap labour, produce those lower grades is no great protection against the more efficiently produced mineral product In short, the outlook for vegetable indigo is not bright by any means

LAC

The lac insect is endemic in India, and it is practically confined to this country It is a wild insect, at the most only semi-domesticated Lac yields two distinct products a dye and a resin The use of both was known in India from very early times To give only a few later witnesses in support of that statement, Mandelso in his Travels (1638) says about

the lacquer work of Gujarat, " They give them such a lustre as none yet could ever imitate in Europe." Tavernier (1676) observes " The country also produces an abundance of shellac There are two kinds of it. That which is formed on trees is of a red colour and is what they dye their calicoes and other stuffs with, and when they have extracted this red colour they use the lac to lacquer cabinets and other objects of that kind, and to make Spanish wax A large quantity of it is exported to China and Japan " Ain-i-Akbari (1590) refers to the use of what was probably a coloured spirit varnish, which was certainly not known in Europe in those days In the succeeding centuries, prominence in the lac trade frequently shifted from the dye to the resin and *vice versa* At one time the East India Company did a large trade in the lac-dye and owned numerous lac factories directly or indirectly Resin was then regarded only as a by-product But the discovery of the aniline dyes smashed the trade in lac-dye, and the resin once more became important because of the new uses discovered for it about the same time The exports of lac-dye from India practically ceased by 1888, but there was a notable increase in the exports of shellac within a few years thereafter

The new lac-factories are practically confined to Calcutta in Bengal and Mirzapore in the United Provinces Mirzapore is a collecting centre for the crude lac from the forests in the Central Provinces, while the Calcutta factories are fed by the forests in Bengal, Assam and Upper Burma The dye has now become a waste material of the factories, because it cannot compete with the product of the laboratory, even when treated as a by-product and charged with a nominal cost of production The problem now, in fact, is how to get rid of the dye which depreciates the value of the resin by its presence. An alteration in the seasons of collection so as to anticipate the formation of the colouring matter has been suggested as a solution.

The production of lac, depending as it does upon the life and habits of a wild insect, fluctuates widely with the vagaries of the season. Attempts at production of the article as auxiliary to another on a plantation have not been found to be quite paying from year to year. The Forest Department of the Government has for some years been interested in the problem, but the major portion of crude lac is collected in the forests in Native States over which the activities of the British Indian Department do not extend. Practically all the lac worked up in the factories above mentioned is exported to Europe or America. But the factories are believed to account for two-thirds, at the most, of the total amount of crude lac annually collected, because the working up of lac is a domestic craft practised all over India. Lac is extensively used in villages and towns for numerous purposes by carpenters, turners, shoe-makers, silver and coppersmiths and others. The artistic ac-dyes, however, have in many places been superseded by the cheaper aniline dyes, though the latter fade very quickly.

Lac is exported from India chiefly in the form of shellac. Button-lac, which is also produced by the factories is exported in comparatively unimportant proportions—say 10 of shell to 1 of button—and the proportion has been decreasing. The quantities of crude lac—either stick or seed—exported are very minor indeed, though there is always a certain demand from varnish-makers for superior seed-lac. The table of figures on p. 156 shows the quantities of shellac annually exported from India between 1900 and 1914. The exports were fairly steady during the first half of the period, but they were on a distinctly higher level during the second half. There was an erratic decrease in 1901-02 and an equally erratic increase in 1909-10. The figures of total value show a more or less steep ascent till 1907-08 and then a steady decline. The average export value shows wide fluctuations from year to year, but the heights it reached between 1903 and 1907 were simply extraordinary. In fact, lac is the most speculative of all the trades in the Indian

articles of export. The reasons for that lie both on the demand and the supply side. The precariousness of supply has already been touched upon. Here it may only be noted that India has a virtual monopoly of the supply of lac to the world-market. Only, if the price soars too high there is a tendency, as in other cases, for the use of substitutes. The demand for lac in Europe and America arises from the new uses to which it has come in latter years to be put, *viz* for high class spirit varnishes (French polish), as the chief material of sealing-wax and hence important in the manufacture of gramophone records, as a stiffening material in hat-making, as an ingredient in lithographic ink, for insulating purposes in the electrical industry, and so on. Now some of these are luxury trades, and hence bring in the element of uncertainty in the factor of demand. But the growth of the electrical industry is no doubt of a permanent character and that should constitute an expanding market for lac.

The chief foreign customer for Indian lac was the *United States* all through the period under review. (See Table.) That country roughly accounted for 50 per cent of the exports in most years. The peculiarity of the American customers was that they purchased direct from the manufacturers of Mirzapore and Calcutta without the mediation of British or Indian merchants. Next to the States stood the *United Kingdom*, whose share of the trade used to range from 30 to 40 per cent in the earlier years of the period but declined later to 25 and 20 per cent. The trade in lac always was mostly a direct trade so that the United Kingdom did not serve as a distributing agent as in many other trades. The only other important customer was Germany whose purchases were very small at the beginning of the period but rose to nearly 15 per cent of the total exports towards the close.

Unlike indigo or opium, the lac trade seems to possess great possibilities, if the precariousness of supply is overcome.

Exports of SHELLAC and Principal Customers, 1899-1914

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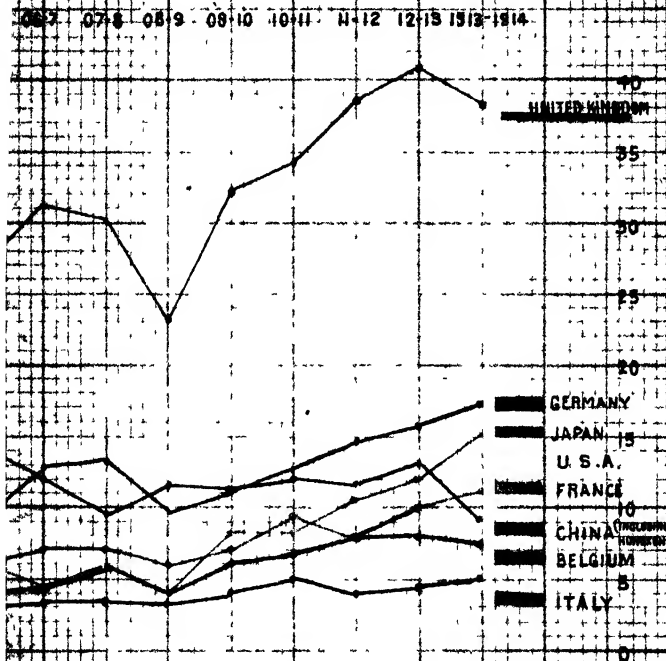
| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Quantity Exported (mil cwts) | 19 | 19 | 12 | 19 | 17 | 19 | 21 | 20 | 27 | 32 | 46 | 35 | 35 | 33 | 27 |
| Value of Exports (mil £) | 61 | 60 | 51 | 1 04 | 1 45 | 1 72 | 1 76 | 1 93 | 2 21 | 1 64 | 1 64 | 1 28 | 1 18 | 1 17 | 1 13 |
| Average Export Value (£ per cwt) | 3 2 | 3 1 | 4 2 | 5 4 | 8 4 | 9 0 | 8 3 | 9 6 | 8 1 | 51 | 3 5 | 3 6 | 3 3 | 3 5 | 4 1 |
| Principal Customers (mil £) | | | | | | | | | | | | | | | |
| United States | 25 | 22 | 26 | 44 | 56 | 65 | 90 | 1 02 | 82 | 70 | 79 | 57 | 47 | 59 | 53 |
| United Kingdom | 18 | 17 | 15 | 43 | 61 | 73 | 41 | 40 | 56 | 40 | 35 | 31 | 23 | 19 | 32 |
| Germany | 08 | 11 | 03 | 08 | 15 | 16 | 24 | 30 | 49 | 32 | 28 | 20 | 26 | 18 | 15 |

CHAPTER VII

DISTRIBUTION OF THE EXPORT TRADE BY COUNTRIES.

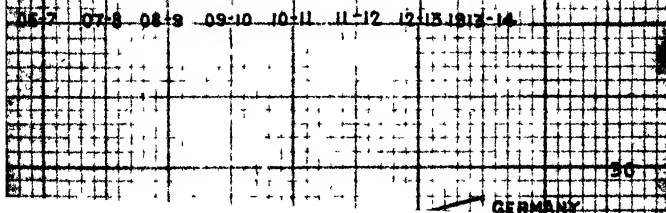
PRODUCE TO PRINCIPAL COUNTRIES

1899-1914



also roughly represents Austria-Hungary.

PRODUCE TO PRINCIPAL COUNTRIES 1899-1914



CHAPTER VII

DISTRIBUTION OF THE EXPORT TRADE BY COUNTRIES

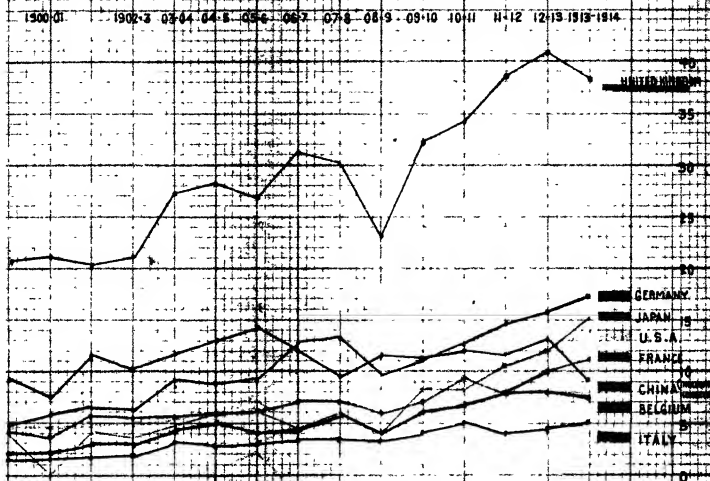
At the beginning of the period under review, roughly speaking, 29 per cent of the exports of Indian produce and manufactures went to the United Kingdom, 25 per cent to Continental Europe, 24 per cent to the Far East, 7 per cent. to the United States and the remaining 15 per cent to sundry other countries scattered all over the globe. By the end of the period the value of the exports had much more than doubled and some changes had taken place in the distribution of that increased trade, as shown by the following percentages, *viz* United Kingdom, 24 per cent, Continental Europe, 29 per cent, the Far East, 17 Per cent, United States, 9 per cent, and all others, 21 per cent. That is to say, between 1900 and 1914 Great Britain and Continental Europe practically changed places as India's customers, and what was lost in the custom of the Far Eastern countries was made up by the gain in that of diverse other minor purchasers.

Taking the countries individually, there were nine which accounted for the bulk of the Indian exports. The accompanying diagram illustrates the comparative growth or decline of the various principal markets for Indian produce. The broad facts standing clearly out from the diagram are (1) that the United Kingdom was throughout the period the largest single customer for Indian goods. As a general rule, she took more than twice as much as the biggest of the other purchasers, though her proportion of the total steadily went down from 29 to 24 per cent during the fifteen years. (2) Amongst the other countries concerned, Germany which stood third in 1900 was second in 1914. The value of exports credited to Germany was £5.0 million in 1900 and £17.5 million in 1914, the respective figures for the United Kingdom being £20.5 million and

I. TOTAL EXPORT OF INDIAN PRODUCE TO PRINCIPAL COUNTRIES

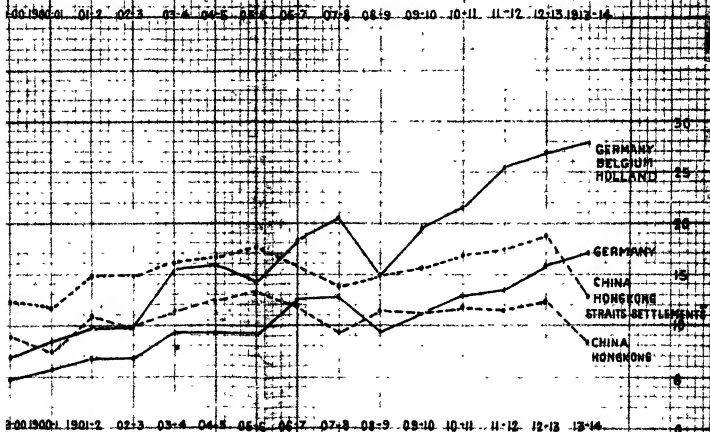
(Values in million £.)

1898-1914



NOTE—The graph for Italy also roughly represents Austria-Hungary.

II. TOTAL EXPORT OF INDIAN PRODUCE TO PRINCIPAL COUNTRIES 1899-1914



NOTE:—Changes in the method of compiling statistics of the Indian Export Trade:—

Up to 1903-4 exports were credited to the country containing the port of direct shipment of goods from India. Thus goods shipped direct to Port Said "for orders" to be later transhipped to some European country, were entered as Exports to Egypt and not to that latter country. Since 1903-4 the necessary change has been made.

£38 5 million The relative rapidity of growth -in the case of Germany as a market for Indian produce was indeed undoubted (3) The increase in Japanese purchases from India was no smaller than that noted with regard to Germany Japan ranked sixth in 1900, with £4 2 million worth of Indian exports to her credit , she stood third in 1914, having taken £15 1 million worth of Indian produce (4) The share of the United States, too, steadily rose from £5 0 million to £14 5 million (5) China ranked second in 1900 and sixth in 1914, owing mainly to her determination to stop the trade in opium (6) Belgium, Italy and Austria severally increased their shares in the Indian export trade , and France, too, did so to a smaller extent

I shall now pass on to the consideration of each of these countries as a market for Indian produce Firstly,

THE UNITED KINGDOM

There are various reasons why the United Kingdom stands far and above all other customers for Indian produce, though her pre-eminence in the field of the Indian export trade is comparatively very much less striking than that in the sphere of the Indian import trade where she contributes (or did in 1900-1914) nearly two-thirds of the goods purchased by India from abroad The reasons about to be specified apply to the position of the United Kingdom in the total sea-borne foreign trade of India, import as well as export, though I shall only have the latter particularly in mind, the former being outside the scope of the present monograph

The reasons are as follows --

(1) *Historical and Political* The mantle of the Portuguese and the Dutch as carriers of Eastern trade fell upon the British in the 18th and 19th centuries. though the French toughly contested it down to 1815 Between 1757 and 1813 the East India Company was at once a political and a commercial body so that the trade of India with the West was officially organised by a monopolistic company of British merchants When the Company lost its monopoly of the Indian trade in 1813, the

advantage of the freedom of trade accrued to the private British merchants, and it was really not till towards the closing decades of the 19th century that merchants of other nationalities began to take advantage of the freedom of trade open to them in India. Great Britain enjoyed undisputed industrial and commercial supremacy for at least half a century (between 1815 and 1875) all over the world and with even greater advantage in India where she had political supremacy as well. In the early eighties the industrially modernised states of Continental Europe, as also the United States and, a little later, Japan began to make an effective bid for a share in the Indian foreign trade. Their efforts showed more and more tangible results in the matter of the Indian export trade than in that of the import trade. It was the entrepôt trade in Indian produce which Britain first began to lose, but the other countries above-mentioned also took to purchasing more and more (proportionally speaking) of the increasing exports of Indian raw produce so that Britain's share in the same, though still the largest *in toto* became less and less large as years went on.

(2) *The railways* in India have been built almost entirely with British capital and by British engineers, and are run under British supervision. There are, of course, no special privileges conferred by the railway companies on the trade with Britain as apart from the trade with other countries, but the indirect benefits derived by the former country cannot altogether be denied.

(3) *Shipping*. As Indian exports consist almost entirely of bulky goods like raw materials and foodstuffs, a large quantity of tonnage is kept busy the whole year transporting those things to the manufacturing nations of the world. In 1900 nearly 8 million tons of shipping (practically all steam) entered into and cleared from Indian ports. In 1914 the tonnage exceeded 17 millions more, i.e. was than doubled in 14 years. The table of figures shows the development in greater detail from year to year. It also shows what a large percentage of the shipping (between 20 and 28) entered *in ballast* and what a

Shipping, 1899-1914, Steam-Tonnage only. (mil tons).

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-----------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ENTERED | | | | | | | | | | | | | | | |
| With Cargoes | 3 16 | 2 99 | 3 61 | 3 90 | 4 44 | 4 69 | 4 43 | 5 09 | 5 43 | 5 47 | 5 46 | 5 60 | 5 94 | 6 20 | 6 72 |
| In Ballast | 93 | 99 | 1 11 | 1 96 | 1 66 | 2 15 | 1 74 | 1 66 | 1 54 | 87 | 1 69 | 1 86 | 2 30 | 2 41 | 1 80 |
| Total | 4 09 | 3 99 | 4 73 | 5 26 | 6 11 | 6 84 | 6 17 | 6 76 | 6 98 | 6 34 | 7 16 | 7 47 | 8 24 | 8 62 | 8 53 |
| % of Ballast to Total | 20 | 25 | 23 | 25 | 27 | 31 | 28 | 24 | 22 | 13 | 23 | 25 | 28 | 28 | 21 |
| CLEARED | | | | | | | | | | | | | | | |
| With Cargoes | 3 67 | 3 69 | 4 39 | 5 11 | 5 89 | 6 52 | 5 86 | 6 45 | 6 71 | 5 92 | 6 84 | 6 96 | 7 73 | 8 28 | 8 16 |
| In Ballast | 09 | 11 | 08 | 11 | 11 | 16 | 22 | 25 | 25 | 41 | 37 | 31 | 42 | 36 | 50 |
| Total | 3 77 | 3 81 | 4 47 | 5 22 | 6 01 | 6 68 | 6 09 | 6 70 | 6 97 | 6 33 | 7 22 | 7 28 | 8 15 | 8 65 | 8 66 |
| % of Ballast to Total | 2 | 3 | 1 | 2 | 1 | 2 | 3 | 4 | 3 | 6 | 5 | 4 | 5 | 4 | 6 |

Note tonnage in ballast enters mostly from Egypt and Straits Settlements Then comes Natal Ceylon, too, contributes largely Sometimes Italy figures in the list.

Shipping by Nationalities, Vessels Cleared, 000 tons, 1899-1914.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14. |
|------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| British | 3 389 | 3 197 | 3 683 | 4 320 | 4 941 | 5 723 | 5 070 | 5 422 | 5 419 | 4 886 | 5 660 | 6 347 | 5 799 | 6 613 | 6 486 |
| * British Indian | 68 | 88 | 87 | 120 | 94 | 48 | 48 | 99 | 349 | 247 | 200 | 187 | 208 | 174 | 145 |
| German | 208 | 258 | 346 | 402 | 520 | 479 | 516 | 509 | 515 | 564 | 595 | 560 | 682 | 749 | 554 |
| Austro-Hungarian | 147 | 174 | 199 | 214 | 204 | 217 | 224 | 231 | 237 | 247 | 340 | 316 | 317 | 357 | 302 |
| Japanese | 32 | 21 | 31 | 44 | 48 | 0 | 1 | 111 | 147 | 107 | 95 | 120 | 175 | 273 | 422 |
| Italian | 57 | 65 | 66 | 67 | 86 | 88 | 103 | 97 | 104 | 97 | 103 | 91 | 94 | 117 | 82 |
| Norwegian | 44 | 20 | 38 | 58 | 92 | 79 | 64 | 102 | 92 | 55 | 64 | 61 | 98 | 100 | 57 |
| French | 88 | 87 | 83 | 103 | 109 | 83 | 113 | 92 | 97 | 81 | 91 | 86 | 90 | 71 | 94 |

* British Indian means vessels first registered at Indian ports, whether under the English Merchant Shipping Act or the Indian Merchant Shipping Acts

small percentage (6 at the most) cleared in ballast. Again, the movement of shipping in India is fairly evenly spread over the whole year and not compressed into a small season, as in the case of Argentina, for instance. The largest 'proportion' of the shipping thus employed was British. The second table of figures shows 'shipping by nationalities' between 1900 and 1914. In the former year out of 37 million tons cleared 33 million was British. No doubt the British share diminished, proportionally speaking, in the succeeding years, as in fact it had already begun to, some years before 1900, but even the low proportion reached by 1914 was represented by 64 million tons out of a total of 66 million cleared.

(4) *Banking.* Most of the great joint-stock banks financing the import and export trade of India have been and are British concerns. Other nations wanting to develop their trade with India have organised their own banking facilities in this country as they have done with regard to shipping.

(5) *Import-Export Houses.* British firms first organised the import-export business in India in all the main trade-centres except Bombay, where Indians always looked after a good deal of it themselves. The position is now only altered by the fact that other nations have (or had before 1914, *e.g.* in the case of Germany) established their own houses to push their respective interests in India.

(6) *Agricultural Policy.* Jute, tea and linseed were introduced into India by the active efforts of the Government in order to develop an export trade in those articles with Great Britain, and the same remark applies to the special encouragement given to wheat-growing and to the cultivation of long-staple cotton by the Agricultural Departments.

The accompanying table of figures shows the total values of the principal articles exported annually from India to the United Kingdom between 1900 and 1914. In order of importance as judged from total values throughout the period instead of in any one year like 1913-4, the articles were as follows:—

Export Trade by Countries, 1899-1914. United Kingdom.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|---|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| UNITED KINGDOM | 20 5 | 20 9 | 20 2 | 21 1 | 27 0 | 28 2 | 26 6 | 31 2 | 29 9 | 24 0 | 32 2 | 34 1 | 38 4 | 40 4 | 38 2 |
| <i>Total Exports of Indian Produce to (mil £)</i> | | | | | | | | | | | | | | | |
| <i>Principal Articles 1 (mil £)</i> | | | | | | | | | | | | | | | |
| Rice | 1 11 | 91 | 94 | 81 | 1 04 | 1 09 | 99 | 83 | 1 11 | 79 | 84 | 1 02 | 93 | 1 30 | 1 12 |
| Wheat | 1 40 | 402 | 1 16 | 1 94 | 6 63 | 7 99 | 4 27 | 4 39 | 5 05 | 83 | 7 10 | 7 11 | 6 74 | 8 38 | 5 69 |
| Barley | | | | | | | | | | | | | 87 | 1 73 | 81 |
| Cotton, Raw | 13 | 70 | 24 | 61 | 1 37 | 74 | 73 | 85 | 92 | 72 | 1 24 | 1 62 | 1 20 | 71 | 95 |
| Jute | 45 | 47 | 41 | 45 | 42 | 36 | 42 | 63 | 72 | 64 | 52 | 49 | 45 | 55 | 61 |
| Gunny Bags | 18 | 45 | 31 | 11 | 09 | 13 | 28 | 54 | 34 | 19 | 24 | 28 | 46 | 40 | 55 |
| Gunny Cloth | | | | | | | | | | | | | | | |
| Raw | 2 62 | 3 27 | 3 52 | 3 28 | 3 48 | 3 29 | 4 87 | 7 70 | 4 67 | 5 52 | 4 28 | 3 88 | 6 53 | 7 35 | 7 82 |
| Wool, Raw | 89 | 59 | 50 | 76 | 89 | 1 13 | 1 33 | 1 54 | 1 36 | 1 36 | 1 85 | 1 86 | 1 65 | 1 70 | 1 62 |
| Linseed | 1 13 | 1 32 | 1 80 | 1 34 | 1 34 | 1 46 | 81 | 77 | 1 11 | 71 | 1 05 | 1 96 | 2 53 | 1 62 | 1 64 |
| Cotton seed | 00 | 02 | 25 | 61 | 41 | 36 | 61 | 79 | 74 | 65 | 1 29 | 1 48 | 98 | 66 | 1 89 |
| Caster seed | 10 | 16 | 21 | 20 | 14 | 14 | 20 | 32 | 57 | 34 | 45 | 57 | 54 | 50 | 54 |
| Hides, Tanned | 55 | 94 | 49 | 40 | 38 | 50 | 96 | 1 06 | 67 | 90 | 91 | 82 | 96 | 1 38 | 1 03 |
| Skins, Tanned | 5 52 | 1 59 | 1 06 | 1 28 | 1 42 | | 1 13 | 1 45 | 94 | 1 43 | 129 | 1 50 | 1 62 | 1 80 | 1 39 |
| Tea, Black | 5 52 | 5 76 | 4 92 | 4 18 | 4 68 | 4 44 | 4 55 | 5 03 | 5 04 | 5 20 | 5 87 | 5 88 | 6 30 | 6 29 | 7 23 |

(1) Tea, Black, (2) Jute, Raw, (3) Wheat, (4) Tanned Hides and Skins; (5) Linseed; (6) Castor-seed, (7) Wool, Raw, and (8) Rice. I have already discussed under each important article of export where the principal customers for it were to be found, and what inferences could be drawn from the figures for fifteen years with regard to the tendency of the individual countries to purchase increasing or decreasing quantities of the particular commodity from India, and also the why and wherefore of such tendencies, as far as possible. In this chapter, therefore, I shall only notice a few striking points, wherever necessary, at the risk of some repetition. The trade in tea and jute, the two most important articles of export to the United Kingdom, is shown by the figures to have had a prosperous career throughout the period. Wheat and linseed fluctuated with the vagaries of the season, but the market in the United Kingdom seemed ready to absorb what quantities came. The outlook for cotton-seed was quite promising. The trade in tanned skins certainly showed no expansion, and that in tanned hides was only slightly better in that respect. The figures of rice, too, do not point to the United Kingdom as at all an encouraging market.

GERMANY

After the United Kingdom, Germany was the country of the greatest importance to Indian foreign trade throughout the period under review, though she stood a long way below the former country. The following table illustrates that statement.

| | Imports from (million £) | | Exports to (million £) | |
|-----------------|-----------------------------|---------|---------------------------|---------|
| | 1899 00 | 1913 14 | 1899 00 | 1913 14 |
| United Kingdom | 32 50 | 78 3 | 20 5 | 38 9 |
| Germany | 1 12 | 8 4 | 5 0 | 17 6 |
| United States | 82 | 3 1 | 5 0 | 14 5 |
| Japan | 33 | 3 1 | 4 2 | 15 1 |
| France | 68 | 1 7 | 4 4 | 11 8 |
| Belgium | 1 22 | 2 8 | 2 2 | 8 0 |
| Austria-Hungary | 1 58 | 2 8 | 1 1 | 6 6 |
| Italy | 49 | 1 4 | 1 8 | 5 2 |

(See also the graph, representing Germany, in the general diagram referred to at the beginning of this chapter)

The striking development of the trade between Germany and India was undoubtedly due to the organised efforts of German business-men, supported by the active sympathy of the German State. The object of those efforts was, firstly, to dispense with the services of the United Kingdom as an intermediary by establishing direct trade relations with India and, secondly, to try to increase the volume of that trade by means of those national organisations. The first thing to do was to organise direct German shipping services between Indian and German ports. The table of figures of 'shipping by nationalities', in the section on the United Kingdom, shows how in 1899-00 there were already 208,000 tons of German shipping (more than those of any other nationality) employed in this work, also how the tonnage grew fairly steadily from year to year till in 1913-4 it amounted to 854,000. Side by side with this shipping development, banks like the Deutsche-Asiatische were organised and German commercial houses established in the chief trade-centres like Bombay and Calcutta. The German Consulates were, of course, at the service of the German commercial communities in their respective spheres. It is true that before the War the great aim before such national organisations, German or any other, was the capture of foreign markets, and that the purchase of raw materials in those countries was a comparatively subordinate aim. Yet the figures given at the beginning of this section show that in the case both of Germany and Japan, the two nations which made special efforts of the kind just described,—the exports to those countries from India were ever so much the more important side of the trade than the imports from those countries into India.

The principal articles in the export-trade to Germany were as follows, in the order of their importance (1) Raw Jute, (2) Raw Cotton, (3) Rice, (4) Raw Hides, and (5) Oilseeds, chiefly Rape-seed, Linseed, Copra. The trade in all the first

Export Trade by Countries, 1899-1914. Germany.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| GERMANY | | | | | | | | | | | | | | | |
| <i>Total Exports to</i> (mil £) | 5 0 | 6 1 | 6 7 | 6 7 | 9 8 | 9 5 | 9 7 | 13 1 | 13 4 | 10 1 | 12 0 | 13 1 | 15 0 | 16 5 | 17 5 |
| <i>Principal Articles</i> (mil £) | | | | | | | | | | | | | | | |
| Rice | 16 | 10 | 25 | 11 | 1 27 | 1 36 | 1 31 | 1 90 | 2 04 | 1 45 | 1 86 | 1 95 | 2 33 | 3 13 | 2 09 |
| Cotton Raw | 76 | 1 18 | 1 19 | 1 82 | 3 09 | 2 01 | 2 46 | 3 14 | 3 63 | 2 13 | 2 85 | 3 54 | 2 22 | 2 20 | 4 00 |
| Jute Raw | 1 08 | 1 46 | 1 52 | 1 47 | 1 54 | 1 74 | 2 15 | 3 93 | 2 55 | 2 85 | 2 22 | 2 40 | 3 39 | 3 82 | 4 49 |
| Rape-seed | 28 | 21 | 97 | 37 | 40 | 59 | 21 | 33 | 84 | 40 | 92 | 91 | 40 | 59 | 65 |
| Linseed | 73 | 67 | 93 | 85 | 1 09 | 1 00 | 54 | 29 | 40 | 04 | 21 | 42 | 66 | 50 | 53 |
| Copra | 04 | 04 | 03 | 10 | 14 | 08 | 13 | 09 | 07 | 16 | 35 | 40 | 56 | 68 | 65 |
| Hides Raw | 96 | 1 25 | 70 | 78 | 84 | 96 | 1 34 | 1 58 | 1 25 | 1 31 | 1 35 | 1 44 | 1 49 | 1 78 | 2 04 |

four items showed a remarkable development during the period under review both in quantity and value Rape-seed showed great fluctuations, which might be attributed to the vagaries of the season in India But the tendency of the market in Germany for Indian linseed was not at all encouraging The trade in copra showed promising development in the last five years of the period By the way, judging from the import statistics, the raw cotton exported to Germany did not return to India in the form of cotton piece-goods, and probably not much in the form of twist and yarn either, but it possibly returned partially in the form of blankets, shawls, hosiery, etc

JAPAN

Japan tried to develop her trade with India in the later nineties, in fact, her serious efforts began soon after her successful war with Russia The methods employed were the same as in the case of Germany *viz*, (1) the organisation of a national shipping service direct between Indian and Japanese ports, (2) special banking facilities at the chief Indian ports, (3) Japanese business houses at those ports and elsewhere in the country to push the sale of Japanese goods and to purchase raw materials for Japanese factories With regard to (1) shipping, the table analysing the tonnage by nationalities (inserted in the section on the United Kingdom) shows that in 1899-00 vessels amounting to 32,000 tons and flying the Japanese flag were cleared from Indian ports, that there was a slow growth till 1903-4, then virtual disappearance for a couple of years, obviously due to the Russo-Japanese War, and a rapid development from 1906-7 onwards till in 1913-14 a figure of 302,000 tons was reached That is a small figure compared to that of Germany for the same year (854,000 tons) and is practically as nothing when compared to that of the United Kingdom for the same year (6,486,000 tons), and similar comparisons for earlier years would show Japan to be very much more behindhand. But it is the rapidity of the development, and not the absolute figures, that is significant as showing the tendency of the movement.

Nippon Yusen Kaisha and the other lines engaged in this work had the active support, financial or otherwise, of the Japanese Government (2) The Yokohama Specie Bank and its branches in Bomaay, Calcutta and other places in India may serve as an instance of how Japanese business in India was financed in special Japanese interests (3) Japanese import-export firms doing business in India could, of course, rely upon all possible help from the Japanese Consulates within those spheres wherein they lay

As in the case of Germany, all this machinery was certainly meant as much for the import as for the export side of the Japanese trade in India, probably, before the War, there was a greater stress on the work of pushing the sale of Japanese manufactures into Indian towns and villages. But here, again, a reference to the figures cited at the beginning of the section on Germany will show that the importance of Japan to India lay, throughout the period, in her being a better customer for Indian raw materials than a supplier of goods to India. In 1899-00 the Japanese imports into India were valued at one-third of a million pounds sterling, in 1913-4 they had risen to over three million pounds. Indian exports to Japan were £4.2 million in the former year, and they increased to £15.1 m. by 1913-4. Imports from Japan into India were very much less in value than those from Germany, as the same table shows, but a reference to the import-statistics of the intervening years proves the increase in them to have been fairly continuous from year to year. That was not the case with the exports of Indian produce to Japan. The accompanying table of figures shows that these latter widely fluctuated and showed no definite tendency towards increase till 1909-10. It was the last five years of the period during which the rapid growth was accomplished. The graph representing Japan in the general diagram given at the beginning of this chapter illustrates the truth of the same statements.

There were only two articles of outstanding importance in the exports from India to Japan, *viz*, cotton and rice. Japan was

Export Trade by Countries, 1899-1914. Japan.

| JAPAN | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <i>Total Exports to * (mil £)</i> | 4 2 | 1 3 | 4 6 | 3 8 | 5 6 | 6 4 | 6 6 | 4 7 | 5 9 | 4 7 | 8 4 | 8 9 | 11 1 | 12 4 | 15 1 |
| <i>Principal Articles (mil £)</i> | | | | | | | | | | | | | | | |
| Rice | 08 | 00 | 03 | 1 08 | 1 97 | 2 34 | 1 82 | 90 | 84 | 14 | 06 | 37 | 1 13 | 1 81 | 1 07 |
| Cotton, Raw | 3 73 | 1 22 | 4 48 | 2 65 | 3 45 | 3 92 | 4 57 | 3 70 | 4 84 | 4 46 | 8 02 | 8 25 | 9 47 | 9 66 | 12 43 |
| Metals (chiefly Iron or Steel) | | | | | | | | | | | | | 01 | 28 | 24 |
| Oilseeds | | | | | | | | | | | | 05 | 09 | 14 | 20 |

always the best customer for Indian cotton in the period under review as she usually took nearly half the cotton exported from India. In the matter of rice, the Japanese market was by no means a dependable one. Indian rice was used for food in Japan to make up for the deficiency or failure of the local harvest. The aim of Japan, especially in the latter half of the period, was to become self-sufficient in the matter of her national food, and to raise more rice in Korea and Formosa with that end in view. It is quite true that if Japan continues to accelerate her industrial development, she cannot escape at least a partial dependence on foreign food supply any more than Germany was able to do, with all her tariff and other devices, but, even so, India cannot regard Japan as either an extensive or a reliable market for her rice.

It is pertinent to note that the principal articles imported from Japan into India before the War were silk manufactures and cotton hosiery. Only a very small fraction of the cotton exported from India to Japan returned in another form to its country of origin. But it was the yarn spun from the bulk of the Indian cotton by Japanese mills which restricted the Chinese market for Indian yarn as much as the Shanghai mills spinning Chinese cotton did in their turn. How the heavy import duty on silver in India, made heavier still by the Tariff Act of 1910, worked as a handsome bounty presented by the Indian Government to the cotton mill-owner in Japan, has already been pointed out in the appropriate place in the section on "cotton-manufactures."

UNITED STATES

Taking the period 1900-14 as a whole, the export-trade to the United States was of greater, not less, importance, from the Indian point of view, than the export-trade to Japan. In fact it was only in 1913-4 that the Indian exports to Japan exceeded in value those to the United States. (See the graph for the United States in the General Diagram given at the beginning of this chapter.) In 1900 the exports to the United

States equalled those to Germany. The growth in India's exports to the former country was fairly continuous throughout the fifteen years, though on a lower scale than in the case of Germany. In the matter of imports into India, the United States held a better position than Japan at the beginning of the period, but allowed the latter country to make up the leeway before the close, though both countries were much less important than Germany all through the period, so far as imports into India were concerned, and, of course, all three were as pigmies when compared to Great Britain. (See the figures given at the beginning of the section on Germany.) The growth of the trade between the United States and India may thus be favourably compared to that of the Indo-Japanese trade and not at all unfavourably, so far as exports from India are concerned, with the Indo-German trade. It is noteworthy, however, that there were, on the part of the United States, no conscious efforts at pushing the trade, in any degree comparable to those made by Germany and Japan as described in the two preceding sections. In the table of "shipping by nationalities" inserted at the beginning of the section on the United Kingdom, the United States is conspicuous by its absence. So in the matter of banking and import-export organisation for the Indian section of its business, the United States was, as a general rule, content, during the period under review, to deal with India through London. It was after the War began that conscious efforts at direct dealing and separate national organisation on the spot in India came much more in evidence. In this case, too, it need hardly be noted that the greater stress naturally was on the question of studying the possibilities of the Indian market for the absorption of more American goods and of devising means to push the sale of the latter. Purchasing raw materials in India was a minor part of the problem.

The accompanying table of figures shows that there were two articles chiefly exported from India to the United States,

Export Trade by Countries, 1899-1914. United States.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| UNITED STATES | | | | | | | | | | | | | | | |
| <i>Total Exports to (mil £)</i> | 5 0 | 4 8 | 5 5 | 5 6 | 6 0 | 6 4 | 8 6 | 10 4 | 9 0 | 8 8 | 9 6 | 9 0 | 10 3 | 12 5 | 14 5 |
| <i>Principal Articles (mil £)</i> | | | | | | | | | | | | | | | |
| Jute Raw | 71 | 78 | 93 | 73 | 91 | 88 | 1 32 | 1 85 | 1 30 | 1 54 | 86 | 1 02 | 1 22 | 1 89 | 2 45 |
| Gunny Bags | 12 | 12 | 21 | 12 | 07 | 10 | 10 | 32 | 23 | 36 | 46 | 41 | 57 | 59 | 1 00 |
| Cloth | 1 09 | 1 14 | 1 62 | 1 97 | 2 04 | 2 01 | 2 51 | 3 59 | 3 89 | 3 12 | 3 76 | 3 71 | 3 53 | 5 24 | 6 81 |
| Castor seed | | | | | | | | | | | 00 | 03 | 15 | 19 | 20 |
| Hides, Raw | 75 | 64 | 37 | 25 | 18 | 27 | 48 | 52 | 20 | 27 | 23 | 16 | 22 | 97 | 69 |
| Skins Raw | 1 19 | 96 | 1 48 | 1 37 | 1 40 | | 2 35 | 2 03 | 1 31 | 1 86 | 2 33 | 1 69 | 1 70 | 1 76 | 1 66 |
| Dressed | 36 | 33 | 16 | 17 | 16 | | 17 | 25 | 22 | 22 | 19 | 16 | 18 | 20 | 1 9 |
| Manganese Ore | 00 | 00 | 02 | 03 | 03 | 05 | 09 | 12 | 13 | 10 | 13 | 12 | 10 | 16 | 10 |
| Shellac | 25 | 22 | 26 | 44 | 56 | 65 | 90 | 1 02 | 82 | 70 | 79 | 57 | 47 | 59 | 53 |

viz jute and skins. In the case of both, the American tariff discriminated definitely in favour of the pure raw material and against the manufactured or partly manufactured product. Nevertheless, the item of the greatest importance in the jute-exports to the States was gunny cloth, all through the period (See Table). Then came raw jute and, last of all, gunny-bags. In the case of skins, however, raw skins were the main item, dressed skins always held a very minor position. Yet it cannot be said that the American tariff was alone responsible for this result, and that the imperfect nature of the tanning done in India and the consequent necessity of re-tanning the skins on their arrival in America, or the superiority of the chrome-tanning process, discovered in the States, to the vegetable-tanning as practised in India, had nothing to do with that result. Raw hides were not more important than dressed skins among the Indian exports to the United States (See Table). Another important article of export was shellac, of which the States were the principal customer, but the total value of this trade was very small, compared to that of the jute or skins trade. (See Table.)

FRANCE

The connection of France with India is almost as old as that of Great Britain, and it was both political and commercial till the death of Tippu Sultan of Mysore in 1799 when France definitely dropped out of the general politics of India, though she still holds Pondicherry, Chundernugger and one or two minor places as relics of her old power. The French, however, never built up a great business with India, whether with or without the use of the political weapon. At the beginning of the period under review, in 1900, Indian exports to France only slightly exceeded those to Japan. Down to 1909 France was a more important customer of Indian goods than was Japan, and throughout the period she kept up her share of the growing export trade of India. But that was all. There was no increase in that proportion as was the case with Germany,

Japan or the United States (See the graph for France in the General Diagram given at the beginning of this chapter) In the matter of selling her own goods to India, France made very much less progress than the other three countries just mentioned (See the figures cited at the beginning of the section on Germany) In fact, there were feeble efforts, if any, made by the French to increase their trade with India, and the natural growth was not as much as was seen in the case of business between the United States and India In the Table of "Shipping by Nationalities" (given at the beginning of the section on the United Kingdom), the figures for France show a fairly steady low level of about 90,000 tons throughout the fifteen years, with just one or two jumps at 100,000 or 110,000 The contrast with the German or Japanese growth of tonnage is seen at a single glance at the Table Similarly, in the matter of national banking arrangements made by France in Indian trade-centres, the Comptoir Nationale of Bombay shows that they were not altogether nonexistent But in general, France, like the United States, utilised the available British services in her trade with India She has no stimulus to try to push her own wares in India for she mostly exports luxury-articles for which there is a very limited scope in India

The principal articles exported from India to France during the period under review were, as the table of figures on p 178 shows (1) Oilseeds, chiefly (a) Groundnut and (b) Linseed, (2) Raw Jute, (3) Raw Cotton, (4) Coffee By far the most important was the oilseeds group consisting of groundnuts, linseed, sesamum, rapeseed and castor-seed The trade in groundnuts came into importance only after 1901, but its development was rapid, especially during the last five years of the period In 1913-14 the value of the trade in groundnuts with France exceeded that of the trade in any other single article with that country (See Table) The export of linseed, too, grew greatly in importance after 1910, when com-

pared with that of rapeseed or sesamum. The exports of the latter seeds to France were of about equal importance, taking one year with another, except during the last three years of the period, when sesamum showed a heavy but definite drop. It was being superseded by groundnut. Castor-exports to France were never very important, nor did they show any definite tendency towards a rise in importance except during the last three years when there were such signs (See Table.) (2) The exports of raw jute to France increased steadily in value throughout the period, though that increase did not mean a greater quantity exported. What it did mean was that the market was successfully retained in spite of a fairly continuous heavy rise in the price of the article. (3) The growth in the total value of cotton exported to France was much smaller and much less continuous than in the case of jute. As the rise in the price of cotton was about the same as with regard to jute, the lesser growth in the total value of cotton-exports to France means that Indian cotton was steadily being ousted from the French market during the period. (4) The value of the Indian exports of coffee to France kept fairly steady during the period. In the declining total exports of coffee from India, the retaining of the hold on the French market was a valuable gain. It was doubtless due to the superior quality of the Indian coffee and the superior taste of the French people that the inferior but cheaper Brazilian article did not altogether oust the Indian product from the French market as it did from other Continental markets. (5) Wheat-exports to France were quite uncertain from year to year, as wheat-exports in general from India were owing to the vagaries of the season. The object of noting them at all here is to point out, from the figures especially of the closing years of the period, that even agricultural France offered by no means a negligible market for Indian wheat, if at all there was a surplus available for export. (See Table.) It was doubtless, the industrial north-eastern region of France which

Expopt Trade by Countries, 1890-1914. France.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| FRANCE | | | | | | | | | | | | | | | |
| <i>Total Exports to (mil £)</i> | 4 4 | 3 9 | 5 9 | 6 0 | 6 5 | 6 3 | 6 3 | 7 4 | 7 6 | 6 4 | 7 6 | 10 1 | 9 1 | 10 5 | 11 7 |
| <i>Principal Articles (mil £)</i> | | | | | | | | | | | | | | | |
| Wheat | 25 | 00 | 03 | 00 | 28 | 95 | 57 | 05 | 09 | 00 | 14 | 93 | 49 | 1 01 | 1 16 |
| Cotton, Raw | 24 | 54 | 44 | 74 | 1 25 | 51 | 95 | 1 10 | 1 25 | 89 | 98 | 1 07 | 81 | 82 | 1 34 |
| Jute, Raw | 35 | 73 | 99 | 99 | 81 | 86 | 1 39 | 2 05 | 1 61 | 1 44 | 1 14 | 1 18 | 1 28 | 1 84 | 2 04 |
| Groundnuts | 05 | 09 | 49 | 39 | 61 | 56 | 50 | 70 | 66 | 81 | 1 35 | 1 63 | 1 59 | 2 18 | 2 62 |
| Rape-seed | 41 | 17 | 78 | 47 | 46 | 40 | 12 | 45 | 67 | 36 | 65 | 74 | 59 | 59 | 61 |
| Linseed | 47 | 50 | 67 | 63 | 52 | 72 | 50 | 55 | 86 | 54 | 60 | 94 | 1 35 | 1 02 | 1 26 |
| Sesamum | 75 | 43 | 71 | 1 16 | 81 | 48 | 39 | 64 | 42 | 37 | 75 | 1 08 | 31 | 34 | 34 |
| Castor seed | 14 | 16 | 18 | 17 | 08 | 08 | 11 | 13 | 13 | 14 | 10 | 13 | 16 | 16 | 20 |
| Manganese Ore | 00 | 00 | 00 | 00 | 00 | 01 | 03 | 04 | 06 | 07 | 07 | 12 | 11 | 12 | 12 |
| Coffee | 28 | 22 | 29 | 20 | 27 | 27 | 37 | 25 | 20 | 36 | 22 | 38 | 28 | 41 | 38 |

was the final destination of the wheat purchased by that country from India in large or small quantities from time to time

CHINA (including HONG-KONG)

In 1900 China was India's most important customer after the United Kingdom, in 1914 she ranked sixth on the list. The total value of Indian exports to all other customers increased, to a greater or less extent, in the interval, in the case of China, the total value of the exports was smaller in 1914 than it had been in 1900 (See the General Diagram at the beginning of this Chapter. See also the table of figures on p 180). The decline in the exports to China began in 1906 when the opium agreement, already described in the section on opium in Chapter VI, was concluded between China and India. Indian exports to China during the period under review mainly comprised two articles, *viz* opium and cotton twist and yarn. The trade in opium diminished in quantity year by year since 1906 according to agreement and virtually ceased in 1914. The total value of the opium-exports to China, however, did not show a corresponding diminution, nay, it even increased in one or two years, because of the extraordinarily high prices at which the smaller quantities exported were disposed of. The figure for 1913-14, the last year of the opium trade with China, showed that the end had come (See Table). The exports of cotton twist and yarn from India to China showed no tendency to increase during the period, though they did not steadily decline either. What happened was that the exports to Hong-kong, destined for Southern China, compensated to a certain extent for the diminishing exports to Shanghai and other Treaty Ports which catered mainly for Northern and Eastern China. It was in the latter area that the competition of Japanese and Chinese mills was felt by the Bombay mills from which the Indian exports of twist and yarn were derived. The uncertainties of the tael exchange were not favourable to the trade and the.

Export Trade by Countries, 1899-1914 China.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11. | 1911-12 | 1912-13 | 1913-14 |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|
| CHINA (including Hong-kong) | | | | | | | | | | | | | | | |
| <i>Total Exports to (mil £)</i> | 9 3 | 7 7 | 11 6 | 10 5 | 11 8 | 12 9 | 14 1 | 12 5 | 9 9 | 11 9 | 12 0 | 12 6 | 12 1 | 13 5 | 8 9 |
| <i>Principal Articles (mil £)</i> | | | | | | | | | | | | | | | |
| Cotton, Twist and Yarn | 4 38 | 2 53 | 5 89 | 5 30 | 5 46 | 5 98 | 7 78 | 6 32 | 4 44 | 5 68 | 5 64 | 4 91 | 4 27 | 5 88 | 5 84 |
| Gunny Bags | 08 | 13 | 27 | 28 | 25 | 29 | 30 | 29 | 13 | 29 | 44 | 17 | 27 | 48 | 32 |
| Opium | 4 02 | 4 48 | 4 08 | 4 01 | 5 18 | 5 53 | 4 90 | 4 80 | 4 35 | 4 92 | 4 60 | 6 16 | 6 62 | 5 64 | 1 10 |

Bombay mills had the further handicap of the import duty imposed on silver in India. Those points have already been dwelt upon in the appropriate place. Here I need only point out that in spite of these difficulties there was no definite decline in this portion of the export-trade to China. There was another article of comparatively minor importance exported to China, *viz.* gunny-bags. The value of the exports of gunny-bags kept fairly steady from year to year, but that means that the quantity exported declined, since the specific value definitely increased during the period. A certain amount of Indian piece-goods used in the early years of the period to be exported to China (the Shanghai region), but the quantity was then already declining thanks to the excise duty imposed in India in 1896, and the decline continued throughout the period. That trade was not important enough to be here noticed separately.

BELGIUM

In 1900 Belgium ranked seventh in the list of India's customers, in 1914 she also stood seventh. In fact, her place in the list never changed in the intervening years. (See the General Diagram at the beginning of this Chapter.) The re-casting of statistics so as to show countries of final destination as accurately as possible did not appreciably reduce exports credited to Belgium and increase those to Germany as might have been expected. A look at the table of figures on p. 182 (corrected as aforesaid after 1907) hardly shows a break anywhere except in 1908-09 when all exports from India were on a very reduced scale owing to a bad season and to the American financial crisis of 1907. The change effected was in the matter of the statistics of imports from Belgium and Germany into India, most of the aniline and alizarine dyes, for instance, and a portion of the cotton manufactures being transferred in the Indian statistics from the former to the latter country as the true source of those articles. In 1900 the imports from Belgium into India

Export Trade by Countries, 1899-1914. Belgium.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| BELGIUM | | | | | | | | | | | | | | | |
| <i>Total Exports to (mil £)</i> | 2 2 | 2 3 | 3 1 | 3 3 | 5 1 | 5 5 | 4 3 | 4 7 | 6 0 | 4 1 | 6 7 | 7 3 | 8 8 | 8 7 | 8 0 |
| <i>Principal Articles (mil £)</i> | | | | | | | | | | | | | | | |
| Wheat | 56 | 00 | 36 | 25 | 81 | 2 13 | 34 | 23 | 42 | 00 | 97 | 40 | 1 20 | 1 28 | 1 01 |
| Cotton, Raw | 40 | 1 10 | 64 | 1 26 | 2 16 | 1 36 | 2 05 | 2 08 | 2 39 | 1 75 | 2 40 | 2 95 | 2 00 | 2 09 | 2 82 |
| Rape-seed | 49 | 27 | 77 | 46 | 50 | 52 | 25 | 54 | 90 | 63 | 1 12 | 86 | 1 01 | 91 | 1 13 |
| Linseed | 11 | 19 | 34 | 26 | 21 | 21 | 22 | 15 | 21 | 06 | 26 | 1 16 | 2 02 | 1 30 | 42 |
| Sesamum | 12 | 22 | 35 | 32 | 36 | 26 | 35 | 53 | 30 | 17 | 43 | 30 | 30 | 27 | 5 |
| Manganese Ore | 00 | 00 | 00 | 00 | 01 | 02 | 05 | 10 | 16 | 14 | 13 | 16 | 16 | 16 | 21 |

lightly exceeded those from Germany (With a re-casting of statistics so as to show the true source of each article, the relative positions of the two countries would probably have been reversed) By 1914 the imports from Belgium had more than doubled, but those from Germany had increased more than six times (See figures quoted at the beginning of the section on Germany) So, again as in the cases of Germany, United States, Japan and France, the importance of Belgium to India lay not so much in her being a supplier of goods as in her being a purchaser of Indian produce

The principal articles amongst the Indian exports to Belgium were (1) Raw Cotton, (2) Oilseeds, chiefly Rapeseed, Linseed, Sesamum, (3) Wheat There was a remarkable growth during the period in the exports of raw cotton to Belgium, as the accompanying table of figures shows, but the growth was only in value, there was no growth but rather a diminution in the quantity of cotton exported to that country The raw cotton thus exported scarcely returned to India in another form, since the value of cotton manufactures of all sorts imported from Belgium into India ranged usually between five and ten per cent of that of the raw cotton exported from India to Belgium (2) Amongst oilseeds the exports of rapeseed showed some tendency towards increase, not merely in value but in quantity as well The figures for linseed were abnormally high between 1910 and 1912 Sesamum showed no definite tendency either towards increase or decline All oilseeds showed great fluctuations from year to year. (3) Wheat-exports with all their violent fluctuations clearly showed Belgium to be a market with potential expansion from the Indian point of view (See Table)

ITALY

Italy, like Belgium, only managed to keep up her proportion of the growing export-trade of India between 1900 and 1914. Exports to Italy amounted to £1 8 million in the former year, and rose fairly steadily to £5.2 million in the latter

year Imports from Italy were on an even lower scale, being £49 million in 1900 and no more than £14 million in 1914. Whatever growth there was was pretty continuous in this case, too. There was no evidence of a conscious effort on the part of Italy to develop her trade with India except in the matter of Shipping. The table of "Shipping by Nationalities" (given at the beginning of the section on the United Kingdom) shows that in 1900 there were 57,000 tons of Italian shipping cleared from Indian ports, and that the tonnage under that flag increased more or less steadily until it reached 117,000 in 1912-13.

The principal articles exported from India to Italy during the period under review were (1) Cotton, Raw, (2) Jute, Raw, (3) Hides and Skins, Raw, and (4) Oilseeds, chiefly Linseed and Sesamum (or Til). The most important article of export was raw cotton. The value of the exports showed a definite upward trend throughout the period though there were frequent fluctuations and set backs. But the quantity exported from year to year was on no higher level at the end of the period than at its beginning. In fact, the figures in 1912 and 1913 were on a distinctly lower level than ten years earlier. 1914, however, showed a recovery so that the downward tendency could not be said to be definite. As in the case of Belgium, so in that of Italy the raw cotton exported from India did not return in the form of a manufactured article to any appreciable extent, since the value of cotton manufactures of all kinds imported from Italy into India did not usually exceed ten per cent of the value of raw cotton sent from India to Italy. But it was very probably the raw cotton thus exported which the Italian mills turned into coarse goods which were then successfully pushed into the Levantine and Black Sea markets so as to dislodge the products of the Bombay mills from those regions. The excise duty imposed on cotton-goods made by Indian mills and not refunded even in case of the export of those goods probably worked

Export Trade by Countries, 1899-1914 Italy

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| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ITALY | | | | | | | | | | | | | | | |
| Total Exports to £ (mil £) | 1 80 | 2 04 | 1 94 | 2 26 | 3 30 | 2 83 | 3 12 | 3 80 | 3 69 | 3 35 | 4 06 | 5 30 | 4 18 | 4 60 | 5 22 |
| Principal Articles £ (mil £) | | | | | | | | | | | | | | | |
| Cotton, Raw | 53 | 79 | 81 | 1 05 | 1 99 | 1 31 | 1 53 | 1 70 | 2 00 | 1 63 | 2 17 | 2 98 | 1 87 | 1 46 | 2 12 |
| Hides and Skins, Raw | 39 | 42 | 30 | 25 | 35 | 48 | 56 | 68 | 39 | 56 | 49 | 62 | 51 | 67 | 56 |
| Jute, Raw | 22 | 30 | 25 | 33 | 34 | 32 | 50 | 74 | 49 | 48 | 50 | 66 | 60 | 92 | 1 13 |
| Linseed | 17 | 09 | 17 | 17 | 22 | 27 | 19 | 27 | 30 | 27 | 29 | 32 | 49 | 38 | 32 |
| Til or Junpli | 19 | 16 | 14 | 15 | 07 | 13 | 01 | 09 | 06 | 12 | 12 | 29 | 18 | 08 | 22 |
| Wheat | 07 | 00 | 00 | 00 | 02 | 00 | 01 | 00 | 00 | 00 | 07 | 02 | 10 | 73 | 28 |

as a bounty to Italy in the markets referred to above (2) In the case of raw jute exported to Italy there was a definite increase during the period, not only in value but also in quantity The increase was fairly continuous from year to year (See Table) (3) The market for raw hides and skins in Italy was not definitely expanding during the period, though the figures of total value of that group suggest so at first sight (4) The same remark applies to linseed As regards sesamum the figures of quantity exported to Italy show such wide fluctuations and are occasionally reduced to such small proportions that the market in Italy for that article cannot at all be regarded as dependable The other items of the oilseeds group are of much less importance in this case Wheat, as the table shows, is an article of a very minor rank in the list of Indian exports to Italy, but the figures for the last three years of the period show the possibilities of the Italian market with respect to that article

AUSTRIA-HUNGARY

Indian exports to Austria-Hungary were valued at £1.1 million in 1899-00 They showed a remarkably continuous growth from year to year, and by 1913-14 they had increased six times to £6.6 million Thus Austria's place was just below Italy's in the list of India's customers for 1900, and in 1914 it was just above that of Italy The table of figures on p. 189 shows the details of the growth of the export trade to Austria during the period under review The value of Austrian imports into India was £1.5 million in 1899-00, the total did not steadily rise from year to year, and in 1913-14 was only £2.8 million The reason was the tenacious efforts made by the Government of India to stop the imports of Austrian bounty-fed sugar into India, and sugar was the most important article in the list of Austrian imports into India Austrian efforts to increase the trade with India both on the import and export side were probably made in concert with German firms At any rate, except in the matter of shipping,

they could not be separately identified. There were 147,000 tons of Austrian shipping cleared from Indian ports in 1899-00. The tonnage increased from year to year with a remarkable continuity and rapidity, second only to that of Germany, so that in 1913-14 vessels aggregating 422,000 tons and flying the Austrian flag were registered as cleared from Indian ports. (See details in the Table of 'Shipping by Nationalities' quoted at the beginning of the section on the United Kingdom.)

The principal articles exported from India to Austria during the period were (1) Raw Cotton, (2) Raw Jute, (3) Rice, (4) Raw Hides and Skins, (5) Oilseeds. (See the accompanying table.) The exports of raw cotton showed a definitely upward tendency in spite of many set-backs. But that statement was only true of total value. An examination of the quantities of raw cotton exported from year to year shows that the market in Austria for Indian raw cotton was really not getting more and more favourable during the period but was rather moving in the reverse direction. As already noted, the same thing was happening to Indian cotton in France, Belgium and Italy. In short, the Continental countries only regarded Indian cotton as something to fall back upon, if they could not get enough of American cotton. This point has already been discussed in the section on raw cotton. The cotton thus exported to Austria did not return to India in manufactured form to any appreciable extent, since, again as in the case of Belgium and Italy, the value of cotton manufactures of all kinds imported from Austria into India did not usually exceed ten per cent of the value of raw cotton exported from India to Austria. Probably in all these Continental countries Indian cotton was to a large or small extent used as an admixture with wool or American cotton. Anyhow the outlook for Indian cotton was not very re-assuring in any of them. In the case of *raw jute*, *rice* and *raw hides*, however, Austria purchased definitely increasing

quantities from year to year, so that the growth was not confined merely to the figures of total value for each of those articles. Rice exported to Europe, it may once more be noted, was mainly used, not for food, but for conversion into spirits or starch. Austrian purchases of Indian rice have developed entirely since 1902-03. *Oilseeds* was an item of comparatively minor but steadily growing importance in Austria's purchases of Indian produce.

Export Trade by Countries, 1899-1914 Austria-Hungary.

| | 1899-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| AUSTRIA HUNGARY | | | | | | | | | | | | | | | |
| <i>Total Exports to (mil £)</i> | 1 13 | 1 80 | 1 58 | 2 13 | 3 19 | 3 11 | 3 19 | 4 01 | 4 25 | 3 21 | 4 31 | 4 92 | 5 04 | 4 83 | 6 46 |
| <i>Principal Articles (mil £)</i> | | | | | | | | | | | | | | | |
| Cotton Raw | 28 | 74 | 62 | 97 | 1 51 | 98 | 1 18 | 1 25 | 1 22 | 76 | 1 66 | 1 94 | 1 30 | 1 00 | 1 94 |
| Hides and Skins (mainly Raw) | 22 | 31 | 21 | 25 | 26 | 35 | 45 | 66 | 45 | 47 | 61 | 74 | 94 | 79 | 1 24 |
| Jute Raw | 25 | 42 | 39 | 40 | 43 | 52 | 71 | 88 | 79 | 77 | 44 | 60 | 88 | 1 10 | 1 31 |
| Oilseeds | 11 | 10 | 08 | 13 | 21 | 16 | 10 | 21 | 28 | 30 | 44 | 48 | 60 | 51 | 58 |
| Rice | 01 | 01 | 06 | 22 | 61 | 91 | 58 | 80 | 1 01 | 73 | 99 | 99 | 1 04 | 1 23 | 1 37 |

CONCLUSION

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The review of the Indian export trade, taken in the foregoing pages, brings out certain salient points which may usefully be put together in conclusion

(1) In the fifteen years under review the export trade showed a remarkable development, not only in value, but also in volume. The development during the five years before the War was particularly striking. And yet even the export-figures of 1913-14 would bear comparison only with those of a small European country like Belgium.

(2) The most important articles of export were the raw materials, *viz.*, raw cotton, raw jute, oilseeds and raw hides and skins. The food-grains of importance which were exported were wheat and rice, though in Europe Indian rice was mainly used for making spirits or starch and not so much for food. The important article of drink amongst the exports was tea and one of smaller importance, coffee. Manufactured articles were represented by cotton twist and yarn, piece-goods, gunny bags and gunny cloth, and partly dressed or tanned hides and skins.

(3) The chief foreign destinations of Indian exports were, in order of their importance in 1913-14, the United Kingdom, Germany, Japan, the United States, France, China, Belgium, Austria-Hungary and Italy. In the case of all these countries except the United Kingdom, India sold a great deal more to each than she bought from. The reverse was true of the trading relations between India and the United Kingdom. Thus there was an extensive series of markets outside the United Kingdom for Indian produce, and the tendency was for those other markets to develop their own direct trade relations with India and thus to reduce the work of the United Kingdom as a distributing agent for Indian goods. This

wide circle of customers also helped India to secure the fullest value for her produce with which she could pay for manufactured articles of all sorts imported chiefly from the United Kingdom. India's capacity to buy finished goods from abroad depended upon the surplus of her raw produce available for export and upon the value realized for the exported produce.

(4) As a result of the European War of 1914-18 the demand of Industrial Europe for raw materials and food-stuffs is temporarily upset and is likely to remain so till Central Europe recovers. The position of the countries exporting raw produce is, nevertheless, naturally strong. Hence such countries will materially injure their own interests if they allow the market for their produce to be restricted. The effect of such a restrictive policy must inevitably be a lower price-level than would be reached under conditions of free competition in an international market. It must be remembered that for making manufactured articles, the European countries depend almost entirely upon imports of raw materials from abroad. It will, therefore, be suicidal for a country producing raw materials to sell its produce at a lower rate to a restricted circle of foreign customers and buy the finished goods it needs at what price it can in the open market or possibly at a higher price still in a restricted market. India is an industrially backward country having mostly raw materials to sell, and she is being advised by some people to restrict the market for her raw materials and also that for the purchase of finished goods under the name of Imperial Preference.

(5) It is suggested that the cheapening of raw materials will help the cause of Indian industrial development, as if what retarded industrial development before the War was the high price of raw materials¹. If that was so, how could other countries purchase those high-priced materials, pay freightage on them and still profitably sell the finished goods made from them in competition with Indian-made goods of the same raw materials²? It is unnecessary to enter here into a controversy upon this point. It is enough to point out that the effect of

restricting the market for Indian produce is problematical so far as Indian industrial development is concerned, but the effect of that policy in cheapening raw materials and thus injuring the producer of them is incontrovertible because it is admitted by the advocates of that policy themselves

(6) Before the War the question of quality of some of the articles exported from India, *e.g.*, cotton and hides, had become important and even urgent, considering the position of those articles in the foreign markets. The question of quality is also of vital importance to the industrial development of India, as has already been noted

(7) Finally, it may be repeated that the position of India is naturally strong as she has raw materials to sell, but let us be careful not to put too high a premium upon our position and hope to tax the foreigner by levying heavy export-duties on our goods. Even if we decide to adopt Imperial Preference, it would be better to confine ourselves to the import-duties, in applying that policy. Our experience of preferential export-duties on hides during these two years cannot by any means be said to be satisfactory

REFERENCE